

M A R C H 2 0 1 9

REPORT TO THE CONGRESS

Medicare Payment Policy



The Medicare Payment Advisory Commission (MedPAC) is an independent congressional agency established by the Balanced Budget Act of 1997 (P.L. 105–33) to advise the U.S. Congress on issues affecting the Medicare program. In addition to advising the Congress on payments to health plans participating in the Medicare Advantage program and providers in Medicare’s traditional fee-for-service program, MedPAC is also tasked with analyzing access to care, quality of care, and other issues affecting Medicare.

The Commission’s 17 members bring diverse expertise in the financing and delivery of health care services. Commissioners are appointed to three-year terms (subject to renewal) by the Comptroller General and serve part time. Appointments are staggered; the terms of five or six Commissioners expire each year. The Commission is supported by an executive director and a staff of analysts, who typically have backgrounds in economics, health policy, and public health.

MedPAC meets publicly to discuss policy issues and formulate its recommendations to the Congress. In the course of these meetings, Commissioners consider the results of staff research, presentations by policy experts, and comments from interested parties. (Meeting transcripts are available at www.medpac.gov.) Commission members and staff also seek input on Medicare issues through frequent meetings with individuals interested in the program, including staff from congressional committees and the Centers for Medicare & Medicaid Services (CMS), health care researchers, health care providers, and beneficiary advocates.

Two reports—issued in March and June each year—are the primary outlets for Commission recommendations. In addition to annual reports and occasional reports on subjects requested by the Congress, MedPAC advises the Congress through other avenues, including comments on reports and proposed regulations issued by the Secretary of the Department of Health and Human Services, testimony, and briefings for congressional staff.

REPORT TO THE CONGRESS

Medicare
Payment Policy



425 I Street, NW • Suite 701 • Washington, DC 20001
(202) 220-3700 • Fax: (202) 220-3759 • www.medpac.gov



425 I Street, NW • Suite 701
Washington, DC 20001
202-220-3700 • Fax: 202-220-3759
www.medpac.gov

Francis J. Crosson, M.D., Chairman
Jon Christianson, Ph.D., Vice Chairman
James E. Mathews, Ph.D., Executive Director

March 15, 2019

The Honorable Michael R. Pence
President of the Senate
U.S. Capitol
Washington, DC 20510

The Honorable Nancy Pelosi
Speaker of the House
U.S. House of Representatives
U.S. Capitol
Room H-232
Washington, DC 20515

Dear Mr. President and Madam Speaker:

I am pleased to submit the Medicare Payment Advisory Commission's March 2019 *Report to the Congress: Medicare Payment Policy*. This report fulfills the Commission's legislative mandate to evaluate Medicare payment issues and make recommendations to the Congress.

The report contains 16 chapters:

- a chapter that provides a broader context for the report by documenting Medicare and total health care spending and their impacts on federal spending;
- a chapter that describes the Commission's analytic framework for assessing payment adequacy;
- nine chapters that describe the Commission's recommendations on fee-for-service (FFS) payment rate updates and related issues;
- a chapter on increasing the equity of Medicare's payments within post-acute care settings;
- a chapter that updates the trends in enrollment, plan offerings, and payments in Medicare Advantage (MA) plans;
- a chapter that updates the trends in enrollment and plan offerings for plans that provide prescription drug coverage;
- a chapter that recommends development of a hospital value incentive program; and
- a chapter responding to a congressional mandate on incentives for prescribing opioids in certain Medicare payment systems and monitoring their use.

In this report, we continue to make recommendations aimed at finding ways to provide high-quality care for Medicare beneficiaries while giving providers incentives to constrain their cost growth and thus help control program spending.

In light of our payment adequacy analyses, we recommend positive payment updates in 2020 for three FFS payment systems (hospital, long-term care hospital, and dialysis); zero updates for three systems (physician, skilled nursing facility, and ambulatory surgical center); and negative updates for three systems (home health, inpatient rehabilitation facility, and hospice). For two of these sectors, we include additional recommendations to the Secretary of Health and Human Services to improve payment accuracy by:

- requiring ambulatory surgical centers to report cost data and
- continuing to revise the skilled nursing facility prospective payment system and annually recalibrate it as needed.

In addition, in the Commission's continuing effort to move payments from volume to value, we recommend the replacement of Medicare's four current hospital quality programs with a single hospital value incentive program. Significantly, this recommendation would provide hospitals with higher aggregate payments than they would receive under current law. However, these additional payments would not be distributed across the board but, instead, would be distributed based on the quality of care hospitals provide.

I hope you find this report useful as the Congress continues to grapple with the difficult task of controlling the growth of Medicare spending while preserving beneficiaries' access to efficiently delivered, high-quality care and providing equitable payment for providers.

Sincerely,

A handwritten signature in dark ink, reading "Francis J. Crosson M.D." in a cursive style.

Francis J. Crosson, M.D.

Enclosure

Acknowledgments

This report was prepared with the assistance of many people. Their support was key as the Commission considered policy issues and worked toward consensus on its recommendations.

Despite a heavy workload, staff members of the Centers for Medicare & Medicaid Services and the Department of Health and Human Services were particularly helpful during preparation of the report. We thank Carol Blackford, Erick Chuang, Mitali Dayal, Kadie Derby, Elizabeth Goldstein, Kate Goodrich, Steve Heffler, Michele Hudson, John Kane, Michelle Ketcham, Diane Kovach, Jana Lindquist, Larry Liu, Hillary Loeffler, Cindy Massuda, Joshua McFeeters, Gil Ngan, Rebecca Paul, Blake Pelzer, Monica Reed-Asante, Cheri Rice, Tiffany Swygert, Scott Talaga, Donald Thompson, David Vance, and Laurence Wilson.

The Commission also received valuable insights and assistance from others in government, industry, and the research community who generously offered their

time and knowledge. They include Rochelle Archuleta, Cristina Boccuti, Tom Bradley, Anna Cook, James Cosgrove, Juliette Cubanski, Akin Demehin, William Dombi, Theresa Forster, Jane Galvin, Bruce Gans, David Gifford, Zinnia Harrison, Doug Johnson, Joanna Kim, Lane Koenig, Tom Kornfield, Ashley McGlone, Jennifer McLaughlin, Kara Newbury, Daria Pelech, Judi Lund Person, Danielle Pierotti, William Prentice, Erica Rogan, Sherri Smith, Steve Speil, Aaron Tripp, Cori Uccello, Rebecca Yip, Carolyn Zollar, and Steve Zuckerman.

Once again, the programmers at Social and Scientific Systems provided highly capable assistance to Commission staff. In particular, we appreciate the hard work of Michael Brown, Po-Lun Chou, Daksha Damera, Darya Leyzarovich, Sravani Mallela, Sane Maphungphong, Shelley Mullins, Lorena Ortiz, Cindy Saiontz-Martinez, and Susan Tian.

Finally, the Commission wishes to thank Hannah Fein, Mary Gawlik, and Melissa Lux for their help in editing and producing this report. ■

Table of contents

Acknowledgments	v
Executive summary	xiii

Chapters

1 Context for Medicare payment policy	3
Introduction	7
National health care spending	7
Medicare spending	11
Medicare's financing challenge	18
Health care spending consumes growing shares of state and family budgets	23
Recent trends in life expectancy, morbidity, and mortality	27
The relationship between Medicare spending and quality	32
Baby boomers will make up the next generation of Medicare beneficiaries	34
Inefficient spending suggests Medicare could spend less without compromising care, but not without challenges	35
Conclusion	41
2 Assessing payment adequacy and updating payments in fee-for-service Medicare	51
Background	55
Are Medicare payments adequate in 2019?	55
What cost changes are expected in 2020?	59
How should Medicare payments change in 2020?	60
Payment adequacy in context	61
3 Hospital inpatient and outpatient services	65
Background	69
Are Medicare payments adequate in 2019?	70
How should Medicare payment rates change in 2020?	89
4 Physician and other health professional services	97
Background	99
Are Medicare fee schedule payments adequate in 2019?	100
How should Medicare payments change in 2020?	119
5 Ambulatory surgical center services	127
Background	129
Are Medicare payments adequate in 2019?	131
How should Medicare payments change in 2020?	144
6 Outpatient dialysis services	155
Background	157
Are Medicare payments adequate in 2019?	161
How should Medicare payments change in 2020?	174
7 Cross-cutting issues in post-acute care	183
Medicare's payments remain high, and revisions to the SNF and HHA payment systems need to be implemented	185
Quality measures should focus on claims-based outcome measures	186
Conclusion	187

8	Skilled nursing facility services	193
	Background	197
	Are Medicare payments adequate in 2019?	199
	How should Medicare payments change in 2020?	215
	Medicaid trends	217
9	Home health care services	227
	Background	231
	Are Medicare payments adequate in 2019?	236
	How should Medicare payments change in 2020?	245
10	Inpatient rehabilitation facility services	251
	Background	255
	Are Medicare payments adequate in 2019?	260
	How should Medicare payments change in 2020?	273
11	Long-term care hospital services	281
	Background	285
	Are Medicare payments adequate in 2019?	286
	How should Medicare payments change in 2020?	300
12	Hospice services	311
	Background	313
	Are Medicare payments adequate in 2019?	315
	How should Medicare payments change in 2020?	335
13	The Medicare Advantage program: Status report	343
	Background	349
	Trends in enrollment, plan availability, and payments	349
	Medicare Advantage risk adjustment and coding intensity	359
	Quality in Medicare Advantage is difficult to evaluate	368
	Future direction of MA payment policy	378
14	The Medicare prescription drug program (Part D): Status report	385
	Background	389
	Enrollment, plan choices in 2018, and benefit offerings for 2019	395
	Plan sponsors and their tools for managing benefits and spending	400
	Drug pricing	404
	Program costs	408
	Beneficiaries' access to prescription drugs	415
	Quality in Part D	416
15	Redesigning Medicare's hospital quality incentive programs	429
	Background	431
	Design of a hospital value incentive program	432
	Scoring methodology	435
	Converting HVIP points to payment adjustments using peer grouping	436
	Comparison of HVIP model to existing hospital quality programs	441
	Recommendation to redesign hospital quality incentive programs	444

16 Mandated report: Opioids and alternatives in hospital settings—Payments, incentives, and Medicare data. 451
Introduction 455
How Medicare pays for opioids and non-opioid alternatives in hospital settings 455
Incentives for prescribing opioids and non-opioid alternatives in hospital settings 459
Medicare monitoring of opioid use through claims and other data 463
Policy options for tracking opioid use in hospital settings. 468

Appendix

A Commissioners’ voting on recommendations. 479

Acronyms 485

More about MedPAC

Commission members. 491

Commissioners’ biographies. 493

Commission staff 497

Executive summary

Executive summary

By law, the Medicare Payment Advisory Commission reports to the Congress each March on the Medicare fee-for-service (FFS) payment systems, the Medicare Advantage (MA) program, and the Medicare prescription drug program (Medicare Part D). In this year's report, we:

- consider the context of the Medicare program in terms of the effects of its spending on the federal budget and its share of national gross domestic product (GDP).
- evaluate payment adequacy and make recommendations concerning Medicare FFS payment policy in 2020 for acute care hospital, physician and other health professional, ambulatory surgical center, outpatient dialysis facility, skilled nursing facility, home health care, inpatient rehabilitation facility, long-term care hospital, and hospice services.
- review the status of the MA program (Medicare Part C) through which beneficiaries can join private plans in lieu of traditional FFS Medicare.
- review the status of the Medicare program that provides prescription drug coverage (Medicare Part D).
- recommend that a hospital value incentive program be developed.
- as mandated by the Congress, report on incentives for prescribing opioid and non-opioid pain treatment under Medicare's hospital inpatient and outpatient payment systems and how opioid use in the hospital setting is monitored by Medicare.

The goal of Medicare payment policy is to obtain good value for the program's expenditures, which means maintaining beneficiaries' access to high-quality services while encouraging efficient use of resources. Anything less does not serve the interests of the taxpayers and beneficiaries who finance Medicare through their taxes and premiums.

The Commission recognizes that managing updates and relative payment rates alone will not solve what have historically been fundamental problems with Medicare FFS payment systems to date—that providers are paid more when they deliver more services, without regard to the value of those additional services, and that these systems do not include incentives for providers to

coordinate services across time and care settings. To address these problems directly, two approaches must be pursued. First, payment reforms need to be implemented more broadly, coordinated across settings, and pursued as expeditiously as possible. Second, delivery system reforms that have the potential to encourage high-quality care, better care transitions, and more efficient provision of care need to be enhanced and closely monitored, and successful models need to be adopted on a broad scale.

In the interim, it is imperative that the current FFS payment systems be managed carefully and continuously improved. Medicare is likely to continue using its current FFS payment systems for some years into the future. This fact alone makes unit prices—their overall level, the relative prices of different services in a sector, and the relative prices of the same service across sectors—of critical importance. Constraining unit price increases can create pressure on providers to control their own costs and to be more receptive to new payment methods and delivery system reforms.

For each recommendation, the Commission presents its rationale, the implications for beneficiaries and providers, and how spending for each recommendation would compare with expected spending under current law. The spending implications are presented as ranges over one-year and five-year periods. Unlike official budget estimates used to assess the impact of legislation, these estimates do not take into account the complete package of policy recommendations or the interactions among them. Although we include these budgetary estimates, our recommendations are not driven by any single budget target, but instead reflect our assessment of the payment rate needed to ensure adequate access to appropriate care balanced with preserving the fiscal sustainability of the Medicare program.

In Appendix A, we list all recommendations and the Commissioners' votes.

Context for Medicare payment policy

Part of the Commission's mandate is to consider the effect of its recommendations on the federal budget and view Medicare in the context of the broader health care system. To help meet this mandate, Chapter 1 examines health care spending growth—for the nation at large and Medicare in

particular—and considers its effect on federal and state budgets as well as the budgets of individuals and families. The chapter also reviews recent mortality and morbidity trends; profiles the health status of the next generation of Medicare beneficiaries; and reviews evidence of inefficient health care spending, structural features of the Medicare program that contribute to inefficient spending, and the Commission’s approach to combating those challenges.

In 2017, total national health care spending was \$3.5 trillion, or 17.9 percent of GDP. Private health insurance spending was \$1.2 trillion, or 6.1 percent of GDP. Medicare spending was \$705.9 billion, or 3.6 percent of GDP.

Health care spending growth has fluctuated recently, first with several years of historic lows, followed by a period of accelerated growth, and most recently a return to modest growth. From 2009 to 2013, growth in total health care spending and Medicare spending slowed to average annual rates of 3.7 percent and 4.3 percent, respectively, and then increased to rates of 5.5 percent and 4.9 percent from 2013 to 2015 before declining to a rate of 4.2 percent (of both total and Medicare spending) from 2016 to 2017.

The aging of the baby-boom generation will continue to have a profound impact both on the Medicare program and taxpayers, who primarily finance it. Over the next 15 years, as Medicare enrollment surges, the number of taxpaying workers per beneficiary is projected to decline. By 2029 (when most boomers will have aged into Medicare), the Medicare Trustees project there will be just 2.4 workers for each Medicare beneficiary, down from 4.6 around the time of the program’s inception and 3.0 in 2018. Those demographics create a financing challenge not only for the Medicare program but also for the entire federal budget. By 2041, under federal tax and spending policies specified in current law, Medicare spending combined with spending on other major health care programs, Social Security, and net interest on the national debt will exceed total projected federal revenues and will thus either increase federal deficits and debt further or crowd out spending on all other national priorities.

The growth in health care spending also affects state budgets and the budgets of individuals and families. States pay for a significant portion of Medicaid spending, increases in private insurance premiums have outpaced the growth of individual and family incomes over the past decade, and out-of-pocket costs for Medicare beneficiaries have grown faster than Social Security benefits.

Some health care spending is inefficient. For Medicare, if such spending could be identified and eliminated, the efficiencies achieved could result in improved beneficiary health, greater fiscal sustainability for the program, and reduced federal budget pressures. Certain structural features of the Medicare program pose challenges for targeting inefficient spending; however, the Commission has made multiple recommendations to the Congress and the Secretary that have the potential to improve the quality of care and move the Medicare program toward paying for value.

Assessing payment adequacy and updating payments in fee-for-service Medicare

As required by law, the Commission annually makes payment update recommendations for providers paid under FFS Medicare. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a payment system is changed relative to the prior year. As described in Chapter 2, to determine an update, we first assess the adequacy of Medicare payments for providers in the current year (2019) by considering beneficiaries’ access to care, the quality of care, providers’ access to capital, and Medicare payments and providers’ costs. Next, we assess how those providers’ costs are likely to change in the year the update will take effect (the policy year, 2020). As part of the process, we examine payments to support the efficient delivery of services, consistent with our statutory mandate. Finally, we make a judgment about what, if any, update is needed.

This year, we consider recommendations in nine FFS sectors: acute care hospitals, physicians and other health professionals, ambulatory surgical centers, outpatient dialysis facilities, skilled nursing facilities, home health care agencies, inpatient rehabilitation facilities, long-term care hospitals, and hospices. Each year, the Commission looks at all available indicators of payment adequacy and reevaluates any assumptions from prior years using the most recent data available to make sure its recommendations accurately reflect current conditions. We may also consider recommending changes that redistribute payments within a payment system to correct any biases that may make patients with certain conditions financially undesirable, make particular procedures unusually profitable, or otherwise result in inequity among providers. Finally, we may also make recommendations to improve program integrity.

The Commission also examines payment rates for services that can be provided in multiple settings. Medicare often pays different amounts for similar services across settings. Basing the payment on the rate in the most efficient setting would save money for Medicare, reduce cost sharing for beneficiaries, and reduce the financial incentive to provide services in the higher paid setting. The Commission has recommended equalizing rates for evaluation and management office visits and additional services provided in hospital outpatient departments and physicians' offices and recommended consistent payment between acute care hospitals and long-term care hospitals for certain classes of patients. We have also recommended elements of a single prospective payment system (PPS) for all post-acute care to replace the four independent PPSs in use today (the skilled nursing facility, inpatient rehabilitation facility, long-term care hospital, and home health PPSs) to make payments across all of the post-acute care payment settings comparable. The Commission will continue to analyze opportunities for applying this principle to other services and settings.

Hospital inpatient and outpatient services

In 2017, the Medicare FFS program paid 4,700 hospitals \$190 billion consisting of \$119 billion for about 10 million Medicare inpatient admissions, \$66 billion for about 200 million outpatient services, and \$6 billion for uncompensated care provided to patients who are not Medicare beneficiaries. On net, between 2016 and 2017, overall hospital spending increased \$7 billion and hospital spending per FFS beneficiary rose 4.3 percent, increasing from \$4,992 to \$5,208.

As discussed in Chapter 3, most payment adequacy indicators (including access to care, quality of care, and access to capital) are positive. Average Medicare margins continue to be negative, although hospitals with excess capacity still have an incentive to see Medicare beneficiaries because Medicare payment rates remain about 8 percent higher than the variable costs associated with Medicare patients.

Beneficiaries' access to care—In 2017, the average hospital occupancy rate was 62.5 percent, suggesting hospitals have excess inpatient capacity in most markets. Because Medicare payments exceed the marginal cost of providing services, hospitals with excess capacity have a financial incentive to increase services provided to Medicare beneficiaries. Marginal profits were

approximately 8 percent on average in 2017. After declining over the last several years, inpatient use per beneficiary in 2017 increased by 0.7 percent. Outpatient visits per beneficiary also increased by 0.7 percent, a slower pace of outpatient volume growth than in recent years.

Quality of care—From 2013 to 2017, hospital mortality and readmission rates improved slowly. Patient satisfaction also improved somewhat: The share of patients who rated their hospital a 9 or 10 on a 10-point scale increased from 71 percent to 73 percent.

Providers' access to capital—Access to bond markets has been strong, with hospital bond offerings in 2015, 2016, and 2017 ranging from \$24 billion, to \$38 billion, to \$35 billion, respectively. While some hospitals struggle with low occupancy and limited access to capital, most hospitals have good access to capital because of strong all-payer profit margins. All-payer margins were 7.1 percent in 2017, only 0.1 percentage point below their all-time high of 7.2 percent in 2013.

Medicare payments and providers' costs—In 2017, hospitals' aggregate Medicare margin was –9.9 percent, down slightly from –9.7 percent in 2016. The profit margin for relatively efficient providers was about –2 percent. We project that the overall Medicare margin will decline to about –11 percent in 2019.

For 2020, the Commission recommends that the Congress update Medicare inpatient and outpatient payment rates by 2 percent. This update recommendation is based on indicators of beneficiaries' access to hospital care, hospitals' access to capital, hospital quality, and the relationship between Medicare payments and hospital costs. As we discuss in Chapter 15, the Commission also recommends a new hospital value incentive program (HVIP) that aligns with our principles for quality measurement and replaces the current quality incentive programs. The difference between the 2 percent update and the update amount specified in current law should be used to increase payments in the new HVIP. Together, these recommendations are expected to increase hospital payments 2.8 percent by increasing the base payment rate and the average rewards hospitals receive under the proposed Medicare HVIP. In addition, we recommend eliminating the penalties associated with the current quality incentive programs, which will have the effect of increasing payments by about 0.5 percent. On net,

hospital payment rates would be expected to increase by an average of 3.3 percent under our combined update and HVIP recommendation.

Physician and other health professional services

Physicians and other health professionals deliver a wide range of services—including office visits, surgical procedures, and diagnostic and therapeutic services—in a variety of settings. In 2017, Medicare paid \$69.1 billion for physician and other health professional services. About 985,000 clinicians billed Medicare: roughly 596,000 physicians and 389,000 nurse practitioners, physician assistants, therapists, chiropractors, and other practitioners.

Medicare pays for the services of physicians and other health professionals using a fee schedule. Under current law, there is no update to Medicare's conversion factor for the fee schedule on January 1, 2020.

As discussed in Chapter 4, our payment adequacy indicators for physicians and other health professionals are generally positive.

Beneficiaries' access to care—Overall, beneficiary access to physician and other health professional services is comparable with prior years. Most beneficiaries continue to report that they are able to find a new doctor without a problem. A small number of beneficiaries report more difficulty, with a higher share reporting problems obtaining a new primary care doctor than reporting problems obtaining a new specialist. The number of physicians per beneficiary declined slightly, the number of advanced practice registered nurses and physician assistants per beneficiary rose, and the share of providers enrolled in Medicare's participating provider program remains high. In 2017, across all services, volume per beneficiary grew by 1.6 percent.

Quality of care—CMS assesses the quality of Medicare-billing physicians and other health professionals based on clinician-reported individual quality measures. We report three population-based measures: patient experience, avoidable hospitalizations for ambulatory care-sensitive conditions, and rates of low-value care in Medicare. Patient experience scores in FFS Medicare remain high, and rates of avoidable hospitalizations for ambulatory care-sensitive conditions continue to decline modestly from prior years, but there is substantial use of low-value care.

Medicare payments and providers' costs—CMS currently projects that the increase in 2020 in the Medicare Economic Index (which measures input prices) will be 2.4 percent. In 2017, Medicare FFS payment rates for physician and other health professional services were 75 percent of commercial rates for preferred provider organizations, unchanged from 2016. Median compensation in 2017 was much lower for primary care physicians than for physicians in certain specialties, such as radiology and nonsurgical, procedural specialties, continuing to raise concerns about fee schedule mispricing and its impact on the future availability of primary care services for beneficiaries.

The evidence suggests that Medicare payments for physicians and other health professionals are adequate. Therefore, the Commission recommends that the 2020 payment rate for physicians and other health professional services be updated by the amount specified in current law.

Ambulatory surgical center services

Ambulatory surgical centers (ASCs) provide outpatient procedures to patients who do not require an overnight stay after the procedure. In 2017, 3.4 million FFS Medicare beneficiaries were treated in the 5,603 ASCs certified to provide services to Medicare beneficiaries. Medicare program and beneficiary spending on ASC services was about \$4.6 billion.

Our results, described in Chapter 5, indicate that beneficiaries' access to ASC services is adequate. Most of the available indicators of payment adequacy for ASC services, discussed below, are positive.

Beneficiaries' access to care—Our analysis of facility supply and volume of services indicates that beneficiaries' access to ASC services has generally been adequate. From 2012 to 2016, the number of ASCs increased by an average annual rate of 1.0 percent. In 2017, the number of ASCs increased 2.4 percent. Almost all new ASCs in 2017 (about 94 percent) were for-profit facilities. From 2012 through 2016, the volume of services per beneficiary increased by an average annual rate of 1.2 percent. In 2017, volume increased by 1.7 percent.

Quality of care—The first four years of ASC-reported quality data show improvement in performance, but the measures used within the ASC Quality Reporting (ASCQR) Program will change substantially in the next few years. Among the 11 quality measures for which data

were available through 2016, performance among the ASCs that reported data improved for most measures.

Providers' access to capital—Because the number of ASCs has continued to increase and hospital systems and others have significantly incorporated ASCs into their business strategies, access to capital appears to be adequate.

Medicare payments and providers' costs—From 2012 to 2016, Medicare payments for ASC services per FFS beneficiary increased by an average annual rate of 3.5 percent. By contrast, in 2017, payments for ASC services increased by 7.7 percent. ASCs do not submit data on the cost of services they provide to Medicare beneficiaries. Therefore, we cannot calculate a Medicare margin as we do for other provider types to help assess payment adequacy.

On the basis of these indicators, the Commission concludes that ASCs can continue to provide Medicare beneficiaries with access to ASC services with no update to the payment rates for 2020. In addition, the Commission continues to recommend that the Secretary of Health and Human Services collect cost data from ASCs without further delay.

Outpatient dialysis services

Outpatient dialysis services are used to treat the majority of individuals with end-stage renal disease (ESRD). In 2017, nearly 395,000 beneficiaries with ESRD on dialysis were covered under FFS Medicare and received dialysis from approximately 7,000 dialysis facilities. In 2017, Medicare expenditures for outpatient dialysis services were \$11.4 billion, a 0.4 percent increase over 2016 expenditures.

Our payment adequacy indicators for outpatient dialysis services, described in Chapter 6, are generally positive.

Beneficiaries' access to care—Measures of the capacity and supply of providers, beneficiaries' ability to obtain care, and changes in the volume of services suggest payments are adequate. Dialysis facilities appear to have the capacity to meet demand. Between 2016 and 2017, the number of dialysis treatment stations grew faster than the number of FFS dialysis beneficiaries, and the growth in the number of FFS dialysis beneficiaries and total number of treatments was relatively flat. The 17 percent marginal profit in 2017 suggests that dialysis providers

have a financial incentive to continue to serve Medicare beneficiaries.

Quality of care—Between 2012 and 2017, mortality, hospitalization, and 30-day readmission rates declined, though the proportion of FFS dialysis beneficiaries using the emergency department increased. With regard to anemia management, negative cardiovascular outcomes associated with the use of high levels of erythropoiesis-stimulating agents declined, and blood transfusions, which initially increased under the PPS, have trended downward since 2013. Between 2012 and 2017, beneficiaries' use of home dialysis, which is associated with improved patient satisfaction and quality of life, increased from 9.5 percent to 11 percent of dialysis beneficiaries. The first-year (2016) results of the accountable care organization model specific to dialysis providers, the ESRD Seamless Care Organization model, were positive; for example, there were fewer inpatient admissions for beneficiaries, and all 13 organizations in the model produced savings relative to their benchmarks. It is not clear if this trend will continue; the results for 2017 and 2018 are not yet available.

Providers' access to capital—Access to capital for dialysis providers continues to be strong. The number of facilities, particularly for-profit facilities, continues to increase. Under the dialysis PPS, the two largest dialysis organizations have grown through acquisitions and mergers with midsized dialysis organizations.

Medicare payments and providers' costs—Between 2016 and 2017 cost per dialysis treatment increased by 2 percent, while Medicare payment per treatment increased by 0.6 percent. We estimate that the aggregate Medicare margin was –1.1 percent in 2017, and the 2019 Medicare margin is projected at –0.4 percent.

In light of these findings, the Commission recommends that for 2020, the Congress update the ESRD PPS base rate by the amount determined under current law.

Cross-cutting issues in post-acute care

Post-acute care (PAC) providers offer important recuperation and rehabilitation services to Medicare beneficiaries. PAC providers include skilled nursing facilities (SNFs), home health agencies (HHAs), inpatient rehabilitation facilities (IRFs), and long-term care hospitals (LTCHs). In 2017, FFS program spending on PAC services totaled \$58.5 billion.

The Commission has previously discussed the challenges to increasing the accuracy of Medicare's payments and overcoming the shortcomings of the separate FFS payment systems for PAC. Over more than a decade, the Commission has worked extensively on PAC payment reform, pushing for closer alignment of costs and payments and more equitable payments across different types of patients.

As discussed in Chapter 7, despite some actions by the Secretary and the Congress, Medicare's payments remain too high relative to the costs of treating beneficiaries in three of the four settings (SNF, HHA, and IRF). In addition, the current HHA and SNF payment systems create inequities across patients with different care needs and the providers that treat them. These overpayments and misalignments threaten the long-run sustainability of the program and create incentives for providers to treat some types of cases over others. Furthermore, they affect the benchmarks for Medicare Advantage plans and alternative payment models. However, after years of research and recommendations by the Commission, the Secretary is poised to make substantial changes to the payment systems Medicare uses to pay HHAs and SNFs that will increase the equity of Medicare's payments within each of these settings. These changes are consistent with longstanding recommendations made by the Commission.

A uniform payment system for all PAC would increase the equity of payments across patients and providers in all PAC settings, but its implementation is on a longer timetable. Until a unified PAC PPS is in place, Medicare must continue to improve its setting-specific payment systems.

To assess the quality of post-acute care, there has been progress in defining common outcome measures across PAC providers and establishing value-based purchasing policies for HHAs (on a demonstration basis) and SNFs. However, the Commission is increasingly concerned that trends in some provider-reported quality measures raise questions about the accuracy and reliability of this information. The Commission has work underway to examine the accuracy of the patient assessment-based quality measures.

Skilled nursing facility services

Skilled nursing facilities (SNFs) provide short-term skilled nursing and rehabilitation services to beneficiaries after

a stay in an acute care hospital. In 2018, about 15,000 SNFs furnished 2.3 million Medicare-covered stays to 1.6 million FFS beneficiaries. Medicare FFS spending on SNF services was \$28.4 billion in 2017, about 1 percent less than in 2016. Just over 4 percent of beneficiaries used SNF services.

As discussed in Chapter 8, most of our payment adequacy measures for SNFs are positive.

Beneficiaries' access to care—Access to SNF services remains adequate for most beneficiaries. The number of SNFs participating in the Medicare program has been stable. The vast majority (89 percent) of beneficiaries live in a county with three or more SNFs or swing bed facilities (rural hospitals with beds that can serve as either SNF beds or acute care beds), and less than 1 percent live in a county without one. Between 2016 and 2017, the median occupancy rate declined slightly but remained high (85 percent). Medicare-covered admissions per FFS beneficiary decreased 2 percent between 2016 and 2017. Lengths of stay also declined by 2 percent. Both contributed to fewer covered days in 2017 compared with 2016. Lower SNF use reflects the growing presence of alternative payment models, not the adequacy of Medicare's payments. An indicator of whether freestanding SNFs have an incentive to treat more Medicare beneficiaries—marginal profit—averaged 19 percent for freestanding facilities in 2017.

Quality of care—Since 2011, SNF quality measures have shown mixed performance. The average rate of discharge to the community increased; the average rate of readmission during the SNF stay improved; the average rate of readmissions after the SNF stay worsened; and the measures of mobility remained the same. Changes in the measures between 2016 and 2017 were similarly mixed.

Providers' access to capital—Because most SNFs are part of nursing homes, we examine nursing homes' access to capital. Despite relatively low total margins (a measure of the total financial performance across all payers and lines of business), lending and investment activities remain robust. Access to capital was adequate in 2018 and is expected to remain so in 2019. Lending wariness reflects broad changes in post-acute care, not the adequacy of Medicare's payments. Medicare is regarded as a preferred payer of SNF services.

Medicare payments and providers' costs—Medicare's spending in 2017 decreased 1 percent to \$28.4 billion. In

2017, the average Medicare margin for freestanding SNFs was 11.2 percent—the 18th year in a row that the average was above 10 percent. Margins varied greatly across facilities, reflecting differences in costs and shortcomings in the SNF PPS that favor treating rehabilitation patients over medically complex patients.

Consistent with our previous years' recommendations, the Commission recommends that the Secretary proceed with his plans to implement a revised SNF PPS. Further, to keep the relative costs of stays aligned with payments, the Commission recommends that the relative weights of the case-mix groups be recalibrated annually.

To address the high level of Medicare's payments, the Commission recommends that the Congress eliminate the fiscal year 2020 update to the Medicare base rates. While the level of payments indicates a reduction to payments is needed to more closely align aggregate payments and costs, the SNF industry is likely to undergo considerable changes as it adjusts to the redesigned PPS. Given the impending changes, the Commission will proceed cautiously in recommending reductions to payments. A zero update would begin to align payments with cost while exerting pressure on providers to keep their cost growth low.

Medicaid trends

As required by the Patient Protection and Affordable Care Act of 2010, we report on Medicaid use and spending and non-Medicare (private-payer and Medicaid) margins. Medicaid finances most long-term care services provided in nursing homes, but also covers the copayments on SNF care for low-income Medicare beneficiaries (known as dual-eligible beneficiaries) who stay more than 20 days in a SNF. The number of Medicaid-certified facilities has declined slightly since 2013, by less than 1 percent, but remains close to 15,000. CMS reports total FFS spending on nursing home services declined 1.6 percent between 2016 and 2017 but projects small increases for 2019.

In 2017, the average total margin—reflecting all payers (including managed care, Medicaid, Medicare, and private insurers) and all lines of business (such as hospice, ancillary services, home health care, and investment income)—was 0.5 percent, down from 2016 (0.7 percent). The average non-Medicare margin (which includes all payers and all lines of business except Medicare FFS SNF services) was –2.4 percent, the same as in 2016.

Home health care services

Home health agencies (HHAs) provide services to beneficiaries who are homebound and need skilled nursing or therapy. In 2017, about 3.4 million Medicare beneficiaries received care, and the program spent \$17.7 billion on home health care services. In that year, almost 12,000 HHAs participated in Medicare.

As we discuss in Chapter 9, the indicators of payment adequacy for home health care are generally positive.

Beneficiaries' access to care—Access to home health care is adequate: Over 98 percent of beneficiaries lived in a ZIP code where an HHA operated in 2017, and 84 percent lived in a ZIP code with five or more HHAs. The number of HHAs fell slightly (by 3 percent) in 2017, but this decline follows a long period of growth in prior years. From 2004 to 2016, the number of HHAs increased by 60 percent. The decline in 2017 was concentrated in areas that experienced sharp increases in supply in prior years. From 2002 to 2016, home health utilization increased substantially, with the number of episodes rising nearly 60 percent and the episodes per home health user climbing from 1.6 to 1.9 episodes. In 2017, volume dropped 3.1 percent, the total number of FFS users also fell slightly, and the average number of episodes per home health user declined by 1.4 percent. Episodes not preceded by a hospitalization accounted for most of the growth since 2002, increasing from about half of episodes in 2002 to two-thirds of episodes in 2017. In 2017, freestanding HHAs' marginal profit—that is, the rate at which Medicare payments exceed providers' marginal cost—was 17.5 percent, suggesting a significant financial incentive for HHAs to serve Medicare patients.

Quality of care—In 2017, the rate of home health patients who were hospitalized or received treatment in the emergency room during an episode did not change significantly, while measures of functional status, such as improvement in walking and transferring, increased. However, the functional status measures should be interpreted cautiously because these measures are based on provider-reported data and could be affected by agency coding practices.

Providers' access to capital—Access to capital is a less important indicator of Medicare payment adequacy for home health care because this sector is less capital intensive than other health care sectors. The major publicly traded for-profit home health companies had sufficient

access to capital markets for their credit needs. Several acquisitions to increase capacity and expansion of capacity by publicly traded home health care firms indicate adequate access to capital. In 2017, the average all-payer margin for HHAs was 4.5 percent.

Medicare payments and providers' costs—In 2017, Medicare spending for home health care declined by 1.6 percent. However, between 2002 and 2016, spending increased by over 88 percent. For more than a decade, payments under the home health PPS have consistently and substantially exceeded costs. In 2017, Medicare margins for freestanding agencies averaged 15.2 percent. The projected margin for 2019 is 16.0 percent.

The high margins of freestanding HHAs have led the Commission to recommend that the 2020 home health PPS base payment rate be equal to the 2019 level reduced by 5 percent. However, this reduction will likely be inadequate to align Medicare payments with providers' actual costs, and further reductions through rebasing will likely be necessary. In past years, the Commission has recommended that payments be rebased in the year following a payment rate reduction, but this year's recommendation is complicated by the changes to home health payment set for 2020. A rebased payment rate should reflect the mix and level of services HHAs provide under the new payment policies because the mix of services and number of visits provided in an episode will likely change. These data will not be available until mid-2021.

Inpatient rehabilitation facility services

Inpatient rehabilitation facilities (IRFs) provide intensive rehabilitation services to patients after illness, injury, or surgery. Rehabilitation programs are supervised by rehabilitation physicians and include services such as physical and occupational therapy, rehabilitation nursing, speech–language pathology, and prosthetic and orthotic services. In 2017, Medicare spent \$7.9 billion on IRF care provided to FFS beneficiaries in about 1,180 IRFs nationwide. About 340,000 beneficiaries had around 380,000 IRF stays. On average, the Medicare FFS program accounted for 58 percent of IRF discharges.

As described in Chapter 10, our indicators of Medicare payment adequacy for IRFs are positive.

Beneficiaries' access to care—Our analysis of IRF supply and volume of services provided and of IRFs' marginal

profit under Medicare's IRF prospective payment system suggest that capacity remains adequate to meet demand. After declining for several years, the number of IRFs increased in 2014 and continued to grow through 2016, reaching 1,188 facilities nationwide. In 2017, the number of IRFs declined slightly, to 1,178 facilities. Over time, the number of hospital-based and nonprofit IRFs has declined, while the number of freestanding and for-profit IRFs has increased. In 2017, the average IRF occupancy rate remained at 65 percent, indicating that capacity is more than adequate to meet demand for IRF services. From 2016 to 2017, the number of Medicare FFS cases going to IRFs declined 2.7 percent, falling to 380,000 cases after having experienced small annual growth every year since 2010. The marginal profit, an indicator of whether IRFs with excess capacity have an incentive to treat more Medicare beneficiaries, was 19.4 percent for hospital-based IRFs and 38.8 percent for freestanding IRFs—a very positive indicator of patient access.

Quality of care—The Commission tracks three broad categories of IRF quality indicators: risk-adjusted facility-level change in patients' functional and cognitive status during the IRF stay, rates of discharge to the community and to skilled nursing facilities, and rates of readmission to an acute care hospital. Most measures were steady or improved between 2012 and 2017.

Providers' access to capital—The parent institutions of hospital-based IRFs continue to have good access to capital. The major freestanding IRF chain, which accounted for almost half of freestanding IRFs in 2017 and about a quarter of all Medicare IRF discharges, also has good access to capital. We were not able to determine the ability of other freestanding facilities to raise capital. Access to capital in large part depends on total (all-payer) profitability. In 2017, the all-payer margin was 10.4 percent for freestanding IRFs and was 7.0 percent for hospitals with IRF units.

Medicare payments and providers' costs—The aggregate Medicare margin for IRFs has grown steadily since 2009 and in 2017 stood at 13.8 percent. In 2017, Medicare margins in freestanding IRFs were 25.5 percent. In 2017, hospital-based IRF margins were comparatively low at 1.5 percent, but one-quarter of hospital-based IRFs had Medicare margins greater than 11 percent, indicating that many hospitals can manage their IRF units profitably. To the extent that hospital-based IRFs routinely assess their patients as less disabled than do their freestanding

counterparts, their payments—and margins—will be systematically lower. For 2019, we project an aggregate Medicare margin of 11.6 percent for all IRFs.

This year, the Commission for the first time examined the financial performance of relatively efficient IRFs. Our analysis found that relatively efficient IRFs performed better on quality metrics and had costs 18 percent lower than other IRFs. Relatively efficient IRFs were on average larger and had higher occupancy rates, contributing to greater economies of scale and lower costs.

On the basis of these factors, the Commission recommends a 5 percent reduction to the IRF payment rate for fiscal year 2020. In addition, the Commission reiterates its March 2016 recommendations that (1) the high-cost outlier pool be expanded to further redistribute payments in the IRF payment system and reduce the impact of misalignments between IRF payments and costs and that (2) the Secretary conduct focused medical record review of IRFs that have unusual patterns of case mix and coding and conduct other research as necessary to improve the accuracy of payments and protect program integrity.

Long-term care hospital services

Long-term care hospitals (LTCHs) provide care to beneficiaries who need hospital-level care for relatively extended periods. To qualify as an LTCH for Medicare payment, a facility must meet Medicare's conditions of participation for acute care hospitals and, for certain Medicare patients, have an average length of stay greater than 25 days. In 2017, Medicare spent \$4.5 billion on care provided in LTCHs nationwide. About 103,000 FFS beneficiaries had roughly 116,000 LTCH stays. On average, Medicare FFS beneficiaries accounted for about two-thirds of LTCHs' discharges.

In fiscal year 2016, CMS began implementing a dual payment-rate structure for LTCHs that decreased payment rates for certain cases not meeting the criteria specified in the Pathway for SGR Reform Act of 2013. The extent to which LTCHs change their admission patterns to admit more cases meeting the criteria (cases that will thus be paid the standard LTCH PPS rate) will ultimately determine the industry's financial performance under Medicare. In Chapter 11, we focus some analyses on LTCHs with a high share (85 percent or more) of cases meeting the criteria in 2017, consistent with the goals of the dual payment-rate policy.

Beneficiaries' access to care—We have no direct measures of beneficiaries' access to needed LTCH services. While we consider the capacity and supply of LTCH providers and changes over time in the volume of services they furnish, we expect reductions in these metrics since the implementation of the new dual payment-rate structure that began in fiscal year 2016. The number of LTCHs began to decrease in 2013, but the decline has been more rapid since the implementation of the dual payment-rate structure. We estimate that the number of LTCHs decreased by 4.1 percent from 2016 to 2017 and by an additional 2.3 percent from 2017 to 2018. However, the average LTCH occupancy rate was 64 percent in 2017, suggesting that LTCHs have adequate capacity in the markets they serve. From 2016 to 2017, the number of LTCH cases decreased by 7.3 percent, continuing a four-year trend that began in 2013. The number of LTCH cases per FFS beneficiary also declined during this period (2016 to 2017) by 7 percent. However, from 2016 to 2017, the number of LTCH cases that met the criteria per 10,000 FFS beneficiaries increased by 3.6 percent. In 2017, marginal profit, an indicator of whether LTCHs with excess capacity have an incentive to admit Medicare patients, averaged about 14 percent across all LTCHs and 16 percent for LTCHs with a high share (85 percent or more) of cases meeting the new criteria.

Quality of care—Consistent with prior years, non-risk-adjusted rates of direct LTCH to acute care hospital readmission, death in the LTCH, and death within 30 days of discharge were stable across all LTCH cases.

Providers' access to capital—LTCHs have begun altering their cost structures and referral patterns in response to the dual payment-rate structure. This transition, coupled with payment reductions to annual updates required by statute and moratoriums in effect for most of the past decade, have limited opportunities for growth in the near term and reduced the industry's need for capital.

Medicare payments and providers' costs—The aggregate Medicare margin for LTCHs was 3.9 percent across all cases in 2016. In 2017, the first year that all LTCHs began transitioning to the dual payment-rate structure, the aggregate Medicare margin was –2.2 percent. However, when we consider a cohort of LTCHs with a high share of cases that met the criteria, and thus admission patterns consistent with the goals of the dual payment-rate structure, the Medicare margin remained positive. Indeed, in 2017, LTCHs with 85 percent or more of their Medicare

cases meeting the criteria had a Medicare margin of 4.6 percent. We expect continued changes in admission patterns and cost structures of LTCHs in response to the implementation of the dual payment-rate structure. We project that LTCHs' aggregate Medicare margin for facilities with more than 85 percent of Medicare discharges meeting the criteria will be 1.2 percent in 2019.

On the basis of these indicators, and in the context of recent changes in payment policy, for fiscal year 2020 the Commission recommends that the Secretary increase the 2019 LTCH payment rate by 2 percent. This update supports LTCHs in their provision of safe and effective care for Medicare beneficiaries meeting the criteria for the standard LTCH PPS rate.

Hospice services

The Medicare hospice benefit covers palliative and support services for beneficiaries who are terminally ill with a life expectancy of six months or less if the illness runs its normal course. When beneficiaries elect to enroll in the Medicare hospice benefit, they agree to forgo Medicare coverage for conventional treatment of their terminal illness and related conditions. In 2017, nearly 1.5 million Medicare beneficiaries (including more than half of decedents) received hospice services from 4,488 providers, and Medicare hospice expenditures totaled about \$17.9 billion.

As discussed in Chapter 12, the indicators of payment adequacy for hospices are positive.

Beneficiaries' access to care—In 2017, hospice use increased across almost all demographic and beneficiary groups examined. In 2017, the number of hospice providers increased by about 2.4 percent due to growth in the number of for-profit hospices, continuing a more than decade-long trend of substantial market entry by for-profit providers. In 2017, the proportion of beneficiaries using hospice services at the end of life continued to grow, and length of stay among decedents increased. For hospice providers, Medicare payments exceeded marginal costs by roughly 14 percent in 2016, suggesting that providers have an incentive to treat Medicare patients.

Quality of care—Limited quality data are available for hospice providers. In 2017, hospices' performance on seven quality measures related to processes of care at hospice admission was very high, but most of the measures appear to be topped out. Hospice Consumer

Assessment of Healthcare Providers and Systems[®] (CAHPS[®]) survey data for individual providers became available for the first time in 2018. Scores on the eight CAHPS measures were generally high; however, there is more variation and potential for improvement with the CAHPS measures than with the process measures.

Providers' access to capital—Hospices are not as capital intensive as some other provider types because they do not require extensive physical infrastructure. Continued growth in the number of for-profit providers (5 percent increase in 2017) suggests capital is available to these providers. Less is known about access to capital for nonprofit freestanding providers, for which capital may be more limited. Hospital-based and home health-based hospices have access to capital through their parent providers.

Medicare payments and providers' costs—The aggregate 2016 Medicare margin was 10.9 percent, up from 9.9 percent in 2015. The projected Medicare margin is 10.1 percent in 2019.

Given the margin in the industry and our other positive payment adequacy indicators, the Commission recommends that hospice payment rates be reduced by 2 percent in 2020. This recommendation would bring payment rates closer to costs, would lead to savings for beneficiaries and taxpayers, and would be consistent with the Commission's principle that it is incumbent on Medicare to maintain financial pressure on providers to constrain costs.

The Medicare Advantage program: Status report

Chapter 13 provides a status report on the Medicare Advantage (MA) program. In 2018, the MA program included about 3,100 plan options offered by 185 organizations, enrolled over 20 million beneficiaries (33 percent of all Medicare beneficiaries), and paid MA plans about \$233 billion (not including Part D drug plan payments). To monitor program performance, we examine MA enrollment trends, plan availability for the coming year, and payments for MA plan enrollees relative to spending for FFS Medicare beneficiaries. We also provide updates on risk adjustment, risk coding practices, and current quality indicators in MA.

The MA program gives Medicare beneficiaries the option of receiving benefits from private plans rather than from

the traditional FFS Medicare program. The Commission strongly supports the inclusion of private plans in the Medicare program; beneficiaries should be able to choose between the traditional FFS Medicare program and the extra benefits and alternative delivery systems that private plans often provide. Because Medicare pays private plans a risk-adjusted per person predetermined rate rather than a per service rate, plans have greater incentives than FFS providers to innovate and use care-management techniques to deliver more efficient care.

The Commission has emphasized the importance of imposing fiscal pressure on all providers of care to improve efficiency and reduce Medicare program costs and beneficiary premiums. For MA, the Commission previously recommended that payments be brought down from prior levels, which were generally higher than FFS, and be set so that the payment system is neutral and does not favor either MA or the traditional FFS program. Legislation has reduced the inequity in Medicare spending between MA and FFS nationally, even as plans have received increased payments because of higher risk coding and quality bonus rules. As a result, over the past few years, plan bids and payments have come down in relation to FFS spending while MA enrollment continues to grow. The pressure of lower benchmarks has led to improved efficiencies and more competitive bids that enable MA plans to continue to increase enrollment by offering benefits that beneficiaries find attractive.

Enrollment—Between November 2017 and November 2018, enrollment in MA plans grew by 8 percent—or 1.6 million enrollees—to 20.5 million enrollees. Among plan types, HMOs continued to enroll the most beneficiaries. Special needs plan enrollment grew by 13 percent, and employer group enrollment grew by 12 percent.

Plan availability—Access to MA plans remains high in 2019; 99 percent of Medicare beneficiaries have access to an MA plan and 97 percent have an HMO or local preferred provider organization (PPO) plan operating in their county of residence. Regional PPOs are available to 74 percent of beneficiaries. Plan availability continues to grow; the average beneficiary in 2019 has 23 available plans. Compared with 2007, MA enrollment in 2018 was more heavily concentrated. The top 10 MA organizations (ranked by enrollment) had 74 percent of total enrollment in 2018, compared with 61 percent in 2007.

Plan payments—Using the 2019 plan bid data, before adjusting fully for coding intensity, we estimate that

2019 MA benchmarks (including quality bonuses), bids, and payments will average 107 percent, 89 percent, and 100 percent of FFS spending, respectively. Adjusting for uncorrected coding intensity differences would increase the ratio of MA payments to FFS spending by 1 percent to 2 percent; hence, MA payments would average about 101 percent to 102 percent of FFS spending. On average, quality bonuses in 2019 will add 4 percent to the average plan's base benchmark and will add 2.4 percent to plan payments. Lower benchmarks have led to more competitive bids from plans: Bids have dropped from roughly 100 percent of FFS before the Patient Protection and Affordable Care Act of 2010 to 89 percent of FFS in 2019.

Risk adjustment and coding intensity—Medicare payments to MA plans are enrollee specific, based on a plan's payment rate and an enrollee's risk score. Risk scores account for differences in expected medical expenditures and are based in part on diagnoses that providers code. Most claims in FFS Medicare are paid using procedure codes, which offer little incentive for providers to record more diagnosis codes than necessary to justify ordering a procedure. In contrast, MA plans have a financial incentive to ensure that their providers record all possible diagnoses: Higher enrollee risk scores result in higher payments to the plan.

Our updated analysis for 2017 shows that higher diagnosis coding intensity resulted in MA risk scores that were 7 percent higher than scores for similar FFS beneficiaries. By law, CMS makes a minimum across-the-board adjustment to MA risk scores to make them more consistent with FFS coding. In 2017, the adjustment reduced MA risk scores by 5.66 percent, leaving MA risk scores and payments about 1 percent to 2 percent higher than they would have been if MA enrollees had been treated in FFS Medicare. The adjustment for 2019 will be 5.9 percent. The Commission previously recommended that CMS change the way diagnoses are collected for use in risk adjustment and calculate a new coding adjustment that improves equity across plans and eliminates the impact of differences in MA and FFS coding intensity.

Quality in MA—Chapter 13 summarizes our concerns with the MA star rating system that is the basis for plan bonuses and public reporting of plan quality. Because of the way the system has been implemented, it is not possible to accurately compare quality among plans or track changes in MA quality over time, and plans can receive quality bonus payments when they are not

warranted. In addition, we continue to lack information that would permit a comparison of MA quality with the quality of care in FFS.

MA star ratings are determined at the contract level, with many quality results determined based on a small sample of medical records. Because contracts can cover wide geographic areas and because of the sample-size issue, contract-level reporting does not capture geographic variation in quality and is unable to adequately identify variation among subgroups of the Medicare population. Using encounter data as the source of quality metrics in MA and moving to market areas as the reporting unit would address this concern. Moving to encounter-based metrics in MA would also permit comparisons between MA and claims-based metrics in FFS.

MA plans receive quality bonuses if they have a star rating of at least 4 stars on a 5-star scale. An issue of concern to the Commission has been the practice of plan sponsors consolidating contracts so that nonbonus contracts acquire the star rating of the “surviving” contract. At the end of 2018, about 550,000 beneficiaries were moved from nonbonus plans to bonus-level plans through contract consolidations, and the sponsors will receive unwarranted bonus payments for those enrollees. This concern has been partly addressed through recent legislation, which provides that, starting at the end of 2019, the star rating for consolidated contracts will be based on an enrollment-weighted average of the results of each contract that is being consolidated.

The Medicare prescription drug program (Part D): Status report

Chapter 14 provides a status report on Part D plans. In 2018, Part D plans were the primary source of outpatient prescription drug coverage for 43.9 million Medicare beneficiaries. Medicare subsidizes about three-quarters of the cost of basic benefits. Part D also includes a low-income subsidy (LIS) that provides assistance with premiums and cost sharing to 12.5 million individuals with low income and assets. In 2017, Part D expenditures totaled \$93.9 billion. Enrollees paid \$14.0 billion of that amount in plan premiums, in addition to what they paid in cost sharing.

Part D has been a success in many respects. It has improved beneficiaries’ access to prescription drugs. Generic drugs now account for nearly 90 percent of the prescriptions filled. Enrollees’ average premiums for basic

benefits have remained around \$30 per month for many years. More than 8 in 10 Part D enrollees report they are satisfied with the program.

However, changes to Part D’s coverage gap and manufacturer discounts combined with the expanding role of high-cost medicines may be eroding plans’ incentives for cost control. Over time, as more enrollees have reached the catastrophic phase of the benefit, a growing share of Medicare’s payments to plans have taken the form of cost-based reinsurance subsidies rather than capitated payments. In addition, beginning in 2019, brand-drug manufacturers must provide a 70 percent discount in the coverage gap (an increase from 50 percent). This change correspondingly decreases what plan sponsors must cover in benefits and likely weakens sponsors’ incentives to manage spending. A separate concern is that Part D’s LIS may lead to plan and beneficiary incentives that increase program costs.

Policymakers are taking steps to give plan sponsors new flexibilities to manage drug spending. For example, CMS now allows for certain midyear formulary changes without prior approval. However, measures to increase the financial risk that sponsors bear (such as those recommended by the Commission in 2016) are also needed so that plan sponsors have greater incentive to use the new management tools and keep Part D financially sustainable for beneficiaries and taxpayers.

Enrollment in 2018 and benefit offerings for 2019—In 2018, 73.3 percent of Medicare beneficiaries were enrolled in Part D plans. An additional 2.5 percent obtained drug coverage through employer-sponsored plans that received Medicare’s retiree drug subsidy. The remaining 24.2 percent were divided roughly equally between those who had creditable drug coverage from other sources and those with no coverage or coverage less generous than Part D.

Between 2007 and 2018, enrollment grew faster in MA–Prescription Drug plans (MA–PDs) compared with stand-alone prescription drug plans (PDPs). In 2018, 42 percent of enrollees were in MA–PDs compared with 30 percent in 2007. Over the same period, the share of enrollees who received the LIS fell from 39 percent to 28 percent.

For 2019, beneficiaries continue to have a broad choice of plans. Sponsors are offering 15 percent more PDPs and 21 percent more MA–PDs than in 2018. MA–PDs continue to be more likely than PDPs to offer enhanced

benefits. In 2019, 215 premium-free PDPs are available to enrollees who receive the LIS. With the exception of 1 region (Florida), all regions have at least 3 and as many as 10 PDPs for LIS enrollees at no premium.

Part D program costs—Between 2007 and 2017, Medicare payments to Part D plans and employers increased from about \$46 billion to about \$80 billion (average annual growth of 5.6 percent). Medicare’s reinsurance (which covers 80 percent of enrollees’ spending in the catastrophic phase of the benefit) grew at an average annual rate of nearly 17 percent and continues to be the fastest growing component of program spending. Also in this period, the portion of the benefits paid to plans through capitated direct subsidies fell from 55 percent to 21 percent, while the portion paid through Medicare’s reinsurance grew from 25 percent to 54 percent. Enrollees who incur spending high enough to reach the catastrophic phase of the benefit (high-cost enrollees) continued to drive Part D spending. In 2016, high-cost enrollees accounted for 58 percent of all Part D spending, up from about 40 percent before 2011. Among high-cost enrollees, nearly all growth in spending was due to increases in the average price per prescription filled. In 2016, nearly 360,000 enrollees filled a prescription that was so expensive that their cost-sharing for a single fill would have been sufficient to meet their out-of-pocket threshold, up from just 33,000 in 2010.

Quality in Part D—In 2019, the average star rating among Part D plans decreased somewhat for PDPs and remained about the same for MA–PDs. However, the trend among MA–PD sponsors of consolidating contracts to achieve higher star ratings leads us to question the validity of MA–PD ratings and the comparison between PDPs and MA–PDs. It is not clear that current quality metrics help beneficiaries make informed choices among their plan options. In the past, the Commission has expressed concerns about the effectiveness of plans’ medication therapy management (MTM) programs to improve the quality of pharmaceutical care due to the lack of financial incentives for sponsors of stand-alone PDPs. In 2017, CMS implemented the enhanced MTM program that rewards PDPs for reducing medical spending. Initial results indicate that half of the participating plans successfully reduced medical spending by 2 percent or more, qualifying them for a higher premium subsidy in 2019. We are encouraged by the initial results.

Redesigning Medicare’s hospital quality incentive programs

The quality of hospital care has improved in recent years, in part due to Medicare’s four hospital quality incentive programs: the Hospital Inpatient Quality Reporting Program, Hospital Readmissions Reduction Program (HRRP), Hospital-Acquired Condition Reduction Program (HACRP), and hospital value-based purchasing (VBP) program. Nevertheless, the Commission has several concerns about the design of these programs, which we discuss in Chapter 15.

The Commission asserts that quality measurement should be patient oriented, encourage coordination, and promote delivery system change. Based on our principles for quality measurement, in our June 2018 report to the Congress we examined the potential to create a single, outcome-focused, quality-based payment program for hospitals—the hospital value incentive program (HVIP). Initially, the HVIP can incorporate existing quality measure domains such as readmissions, mortality, spending, patient experience, and hospital-acquired conditions (or infection rates). The HVIP uses clear, prospectively set performance standards to translate hospital performance on these quality measures to a reward or penalty.

Adjusting measure results for social risk factors can mask disparities in clinical performance. Therefore, the HVIP that we modeled accounts for differences in providers’ patient populations by incorporating a peer-grouping methodology, in which quality-based payments are distributed to hospitals separated into 10 peer groups, defined by the share of fully dual-eligible beneficiaries treated (using full Medicaid eligibility as a proxy for income). The HVIP redistributes pools of dollars to hospitals in the peer groups based on their quality performance. The pools of dollars are funded by a payment withhold from all hospitals in the peer group (e.g., 5 percent) and a portion of the current-law hospital payment update. Under the Commission’s HVIP model, the use of peer grouping of hospitals that serve different populations makes payment adjustments more equitable compared with the existing quality payment programs.

Consistent with the Commission’s principles, the HVIP links payment to quality of care to reward hospitals for efficiently providing high-quality care to beneficiaries. Accordingly, the Commission recommends that the

Congress replace Medicare’s current hospital quality programs with this new HVIP that includes a small set of population-based outcome, patient experience, and value measures; scores all hospitals based on the same absolute and prospectively set performance targets; and accounts for differences in patients’ social risk factors by distributing payment adjustments through peer grouping. As we discuss in Chapter 3, the Commission recommends that payments in the HVIP be increased by the difference between the Commission’s update recommendation for acute care hospitals and the amount specified in current law. The increased payment in the HVIP will better reward hospitals providing higher quality care. In addition, eliminating the existing penalty-only programs (i.e., the HRRP and HACRP) would have the effect of removing about \$1 billion in penalties that hospitals currently pay each year.

Mandated report: Opioids and alternatives in hospital settings—Payments, incentives, and Medicare data

Chapter 16 is the Commission’s response to the mandate in the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act of 2018 for the Commission to describe how Medicare pays for both opioid and non-opioid pain management treatments in hospital inpatient and outpatient settings, incentives under the inpatient and outpatient prospective payment systems for prescribing opioids and non-opioids, and how opioid use is monitored through Medicare claims data.

Medicare uses bundled payments to pay for pain management drugs and services in both the inpatient and outpatient settings. Bundled payments are applied differently in the two settings. The inpatient prospective payment system (IPPS) assigns stays to categories (Medicare severity–diagnosis related groups) based on patients’ conditions and sets payment bundles that reflect the average costs of providing all goods and services supplied during the stay. The outpatient prospective payment system (OPPS) also groups services into categories (ambulatory payment classifications), but on the basis of clinical and cost similarity, and sets payment bundles to cover the costs of providing integral goods and services and items along with the primary service. Additional goods and services are paid separately or are not paid under the OPPS.

Some observers have questioned whether Medicare’s hospital payment systems create financial incentives for

providers to choose opioids over non-opioid alternatives. The IPPS and OPPS payment bundles create a financial incentive for hospitals to be cost conscious in selecting goods and services. Medicare’s quality measurement and reporting programs, along with providers’ clinical expertise and professionalism, are designed to balance this financial incentive. Ideally, these balanced incentives result in high-quality outcomes at the best prices for beneficiaries and other taxpayers. However, if opioids were systematically cheaper than non-opioid alternatives, providers might be more inclined to opt for them, especially if doing so did not affect performance on quality measures. We analyzed publicly available prices for opioid and non-opioid alternatives commonly used in the hospital setting and found that both opioids and non-opioids are available at a range of list prices, including expensive and inexpensive options for both. Thus, there is no clear indication that Medicare’s IPPS or OPPS discriminates against non-opioids. Indeed, hospitals that select more expensive options for clinical reasons have tools available to them, such as reducing length of stay, to partially or fully offset these costs.

Our study is not intended to be an assessment of the clinical appropriateness of the use of opioids versus non-opioid alternatives. Clinicians’ decisions about which analgesic drugs to prescribe are based on a multitude of patient-specific factors. Furthermore, we recognize that there are incentives in addition to financial ones that may have an even greater influence on clinicians’ choice of pain treatments, such as effects on patient experience, length of stay, need for additional nursing services, and—most important—the management of potential risks and clinical efficacy. However, these motivations are not unique to the Medicare IPPS and OPPS, so to comply with the mandate’s due date, we focused on the extent to which these payment systems introduce financial incentives.

CMS monitors opioid use through claims and other data in the Part D program. The tools used in the Part D program include the Medicare Part D Overutilization Monitoring System, which ensures that Part D plan sponsors implement the opioid overutilization policy effectively; quality measures to track trends in opioid overuse across the Medicare Part D program and to drive performance improvement among plan sponsors; and the publicly available Medicare Part D opioid prescribing mapping tool.

Medicare does not operate similar tracking programs in Part A or Part B. Given concerns about the opioid crisis,

policymakers may wish to direct CMS to track opioid use in hospital inpatient and outpatient settings. If Medicare were to undertake an opioid monitoring program in Part A and Part B, there are structural differences from Part D that would require adaptation of CMS's current monitoring program. There are at least three options for implementing

a Part A and Part B opioid tracking program: (1) require prescription drug event-type reporting, (2) include all pain management drugs in Part A and Part B claims, and (3) link Part D opioid use to hospitals responsible for its initiation. ■

CHAPTER

1

Context for Medicare payment policy

Context for Medicare payment policy

Chapter summary

Part of the Commission’s mandate is to consider the effect of its recommendations on the federal budget and view Medicare in the context of the broader health care system. To help meet this mandate, this chapter examines health care spending growth—for the nation at large and Medicare in particular—and considers its effect on federal and state budgets as well as the budgets of individuals and families. The chapter also reviews recent mortality and morbidity trends; profiles the health status of the next generation of Medicare beneficiaries; and reviews evidence of inefficient health care spending, structural features of the Medicare program that contribute to inefficient spending, and the Commission’s approach to combating those challenges.

In 2017, total national health care spending was \$3.5 trillion, or 17.9 percent of gross domestic product (GDP) according to the National Health Expenditure Accounts (NHEA) official estimates of total health care spending in the United States (Centers for Medicare & Medicaid Services 2018a). Private health insurance spending was \$1.2 trillion, or 6.1 percent of GDP. Medicare spending was \$705.9 billion, or 3.6 percent of GDP.

Health care spending growth has fluctuated recently, first with several years of historic lows, followed by a period of accelerated growth, and most recently with a return to modest growth. For decades—from 1975 to 2009—total

In this chapter

- National health care spending
- Medicare spending
- Medicare’s financing challenge
- Health care spending consumes growing shares of state and family budgets
- Recent trends in life expectancy, morbidity, and mortality
- The relationship between Medicare spending and quality
- Baby boomers will make up the next generation of Medicare beneficiaries
- Inefficient spending suggests Medicare could spend less without compromising care, but not without challenges

health care spending and Medicare spending grew robustly, annually averaging 9.0 percent and 10.6 percent, respectively. Then, from 2009 to 2013, growth in total health care spending and Medicare spending slowed to average annual rates of 3.7 percent and 4.3 percent, respectively.

The causes of the system-wide slowdown are still a matter of speculation. A variety of factors could have contributed—weak economic conditions, payment and delivery system reforms, lower Medicare payment rates for most types of providers as mandated by the Patient Protection and Affordable Care Act of 2010 (PPACA), and the increased use of generic drugs as top-selling brand drugs lost patent protection (Boards of Trustees 2016, Centers for Medicare & Medicaid Services 2015, Cutler and Sahni 2013, Holahan et al. 2017).

However, spending increased from 2013 to 2015. Medicare actuaries estimate that national health care spending grew at an average annual rate of 5.5 percent and that Medicare spending grew at an average annual rate of 4.9 percent. The increase in the national health care spending growth rate was largely due to the continued effects of coverage expansions for health insurance that commenced in 2014 under PPACA; higher growth in spending for private health insurance (driven largely by price growth, hospital care, and physician and clinical services); and the rapid growth in retail prescription drug spending.

The aging of the baby-boom generation will continue to have a profound impact both on the Medicare program and taxpayers, who primarily finance it. Over the next 15 years, as Medicare enrollment surges, the number of taxpaying workers per beneficiary is projected to decline. By 2029 (when most boomers will have aged into Medicare), the Medicare Trustees project there will be just 2.4 workers for each Medicare beneficiary, down from 4.6 around the time of the program's inception and 3.0 in 2018. Those demographics create a financing challenge not only for the Medicare program but also for the entire federal budget. By 2041, under federal tax and spending policies specified in current law, Medicare spending combined with spending on other major health care programs, Social Security, and net interest on the national debt will exceed total projected federal revenues and will thus either increase federal deficits and debt further or crowd out spending on all other national priorities.

The growth in health care spending also affects state budgets and the budgets of individuals and families. States pay for a significant portion of Medicaid spending (funded jointly by states and the federal government for health care services provided to state residents with low incomes). Under PPACA, the Medicaid population is expanding; however, under current law, the federal government

will pay for most of the costs associated with the expansion. Increases in private insurance premiums have outpaced the growth of individual and family incomes over the past decade, and out-of-pocket costs for Medicare beneficiaries have grown faster than Social Security benefits.

Some health care spending is inefficient. For Medicare, if such spending could be identified and eliminated, the efficiencies achieved could result in improved beneficiary health, greater fiscal sustainability for the program, and reduced federal budget pressures. Certain structural features of the Medicare program pose challenges for targeting inefficient spending; however, the Commission has made multiple recommendations to the Congress and the Secretary that, if implemented, have the potential to improve the quality of care and move the Medicare program toward paying for value. ■

Introduction

The Medicare program lies at the junction between the national health care system as a whole and the federal government. For this reason, this chapter reviews the following key areas to help explain the Medicare payment policies discussed in the rest of this report:

- national health care spending and Medicare spending;
- the impact of health care spending on federal and state budgets;
- effects of health care spending on individuals and families;
- recent trends in life expectancy, morbidity, and mortality;
- the impact of Medicare spending on the quality of health care;
- the next generation of Medicare beneficiaries; and
- evidence of inefficient health care spending.

This chapter also reviews the challenges that Medicare in particular faces and the Commission's principles for constructing recommendations to address those challenges.

National health care spending

Spending growth

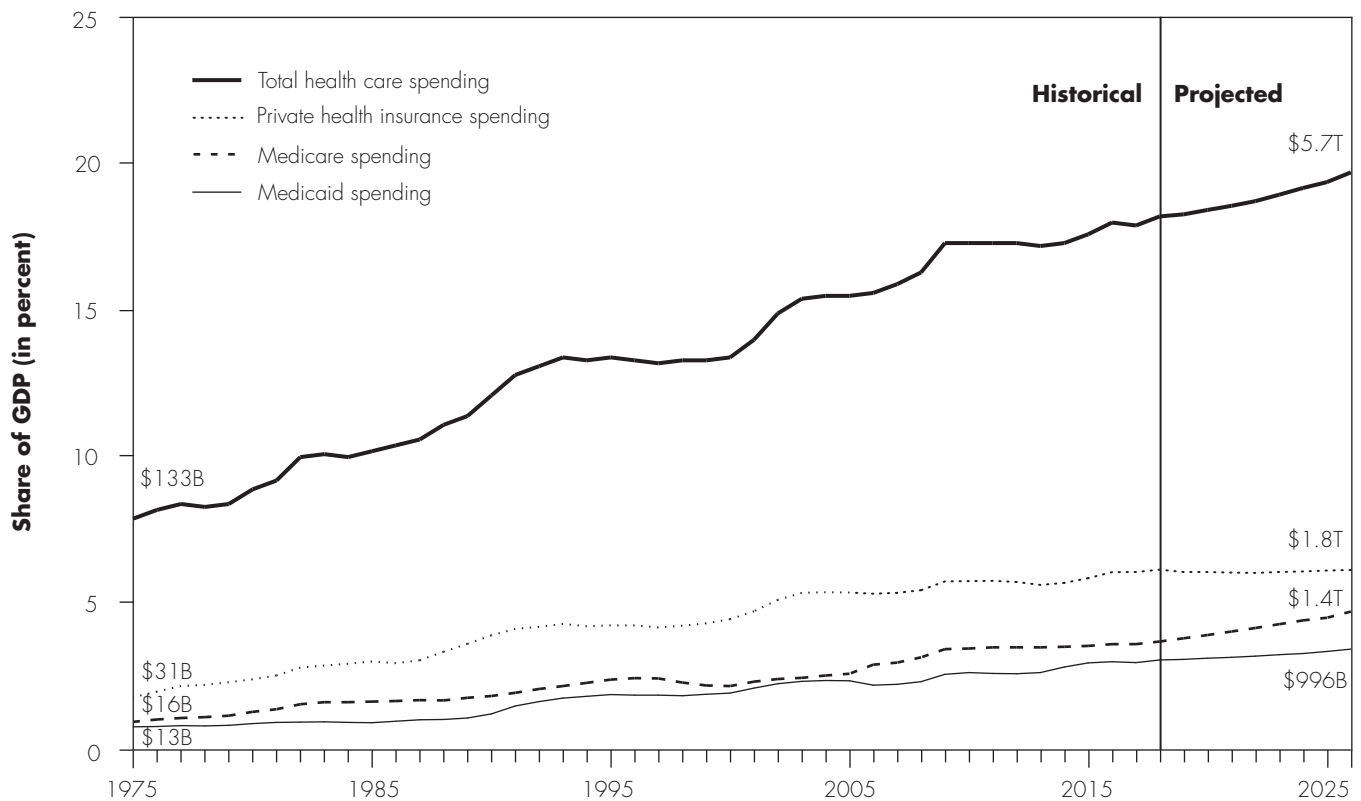
The relationship between health care spending growth and the nation's economic growth serves as a gauge for assessing spending trends. For decades, health care spending rose as a share of gross domestic product (GDP). That general trend was true both for private health insurance spending and Medicare (Figure 1-1, p. 8). From 1975 to 2009, health care spending as a share of GDP more than doubled, from 7.9 percent to 17.3 percent (\$133 billion to \$2.5 trillion, respectively). Private health insurance spending as a share of GDP more than tripled over that period, from 1.8 percent to 5.8 percent (\$31 billion to \$833 billion). Medicare spending as a share of GDP also more than tripled over that period, from 1.0 percent to 3.5 percent (\$16 billion to \$499 billion, respectively). But in the recent past (from 2009 to 2013), the rate of increase in

that share slowed. From 2009 through 2013, total health care, private health insurance, and Medicare spending as a share of GDP remained relatively constant. But beginning in 2014, spending as a share of GDP for all three began rising again (Centers for Medicare & Medicaid Services 2017).

The recent slowdown in the rate of health care spending growth has not been fully explained. Contributing factors could include weak economic conditions, payment and delivery system reforms, lower Medicare payment rates for most types of providers as mandated by the Patient Protection and Affordable Care Act of 2010 (PPACA), and the increased use of generic drugs as top-selling brand drugs lost patent protection (Boards of Trustees 2016, Centers for Medicare & Medicaid Services 2015, Cutler and Sahni 2013, Holahan et al. 2017).¹

Medicare actuaries estimate that spending growth from 2016 to 2017 slowed compared with 2015 to 2016, both for private health insurance and for Medicare (Martin et al. 2018). From 2016 to 2017, spending growth both for private health insurance and Medicare was 4.2 percent. Yet from 2015 to 2016, spending growth for private health insurance was 6.2 percent and for Medicare was 4.3 percent. This recent increase followed a brief period of high growth from 2013 through 2015. From 2013 through 2015, growth for private health insurance averaged 6.3 percent per year and averaged 4.9 percent per year for Medicare. By 2017, total health care spending accounted for 17.9 percent of GDP. Overall, the slower growth from 2016 to 2017 was due largely to the lower use and intensity of medical goods and services, including hospital and clinician services and retail prescription drugs.

Over the next decade, Medicare actuaries project that growth in national health expenditures will be driven by increases in prices for medical goods and services, including drugs, and growth in the volume and intensity of services. In addition, enrollment will continue to shift from private health insurance to Medicare because of the continued aging of the baby-boom generation into eligibility. Thus, growth rates for health care spending will average 5.5 percent annually, outpacing average growth in GDP by 1.0 percentage point (Centers for Medicare & Medicaid Services 2018b). By 2026, total health care spending as a share of GDP will grow to 19.7 percent (Cuckler et al. 2018). In that year, private health insurance spending and Medicare spending are projected to reach 6.2 percent and 4.7 percent of GDP, respectively (Centers for Medicare & Medicaid Services 2018b).

**FIGURE
1-1****Health care spending has grown as a share of GDP**

Note: GDP (gross domestic product), B (billion), T (trillion). First projected year is 2018. Beginning in 2014, private health insurance spending includes federal subsidies for both premiums and cost sharing for the health care exchanges created by the Patient Protection and Affordable Care Act of 2010.

Source: MedPAC analysis of National Health Expenditure Accounts from CMS, historical data released December 2018, projected data released February 2018.

Personal health care spending

To better understand who is paying for health care, we examine a subset of total national health expenditures, namely personal health care spending—all medical goods and services provided for an individual's treatment. In 2017, personal health care spending (which excludes spending on government public health activities (e.g., epidemiological surveillance and disease prevention programs); administration of private and public health insurance; and investments in medical research, equipment, and structures) accounted for 85 percent of total health care spending (Centers for Medicare & Medicaid Services 2018a).

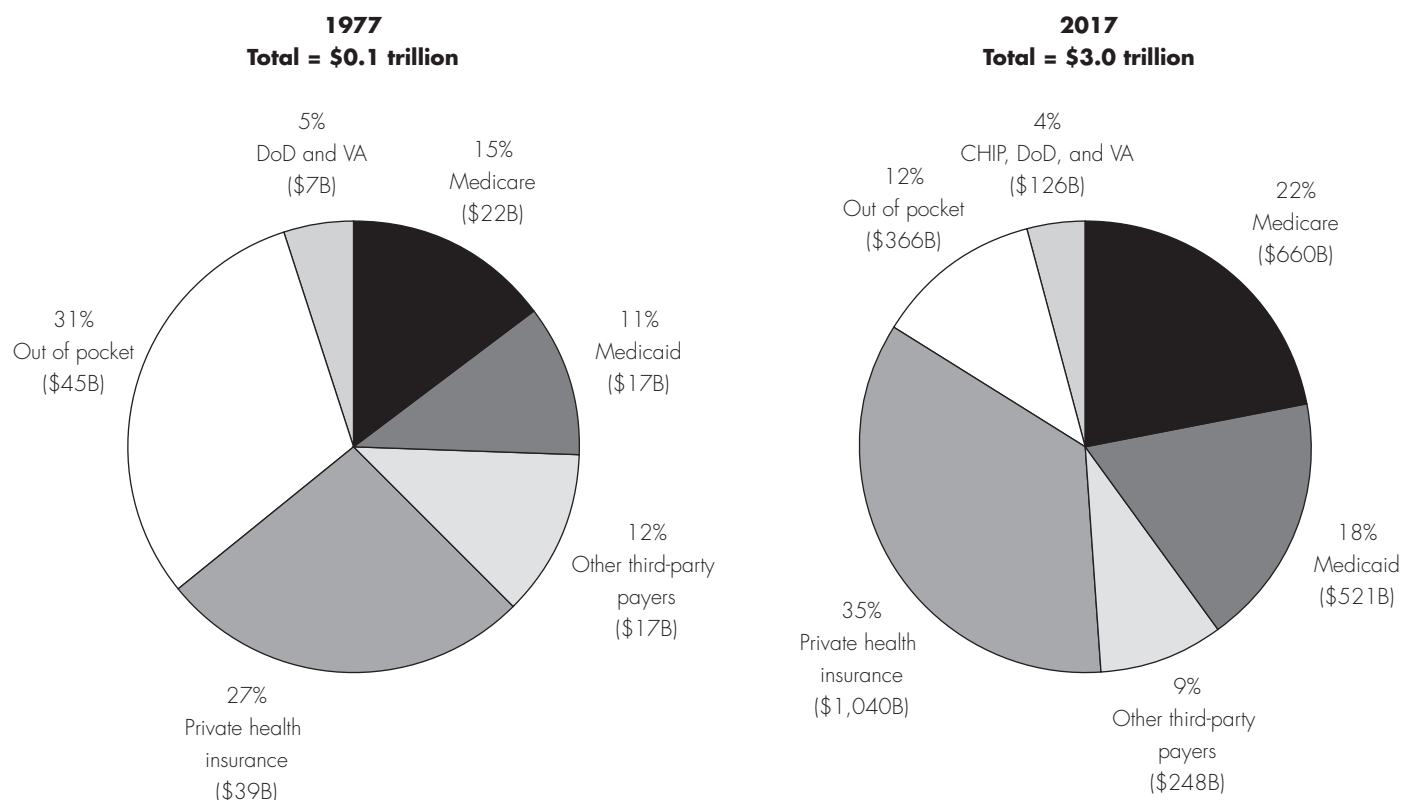
Over the past four decades, total personal health care spending increased from \$0.1 trillion to \$3.0 trillion

(Figure 1-2). During this period, out-of-pocket spending (e.g., cost sharing, deductibles, and health care services not covered by insurance) as a share of total personal health care spending declined from 31 percent to 12 percent, while the shares accounted for by private health insurance, Medicare, and Medicaid all increased. At the same time, Medicare has remained the single largest purchaser of health care in the United States (Centers for Medicare & Medicaid Services 2018a).²

Despite the decline in the share of health care spending paid directly out of pocket by individuals and the increase in the share of health care spending paid by private and public insurance, people generally have not experienced real declines in the share of health care costs they pay. One reason is that in the commonly defined health care

**FIGURE
1-2**

Out-of-pocket spending as a share of personal health care spending declined, while the share of spending by payers—private, Medicare, and Medicaid—increased, 1977 and 2017



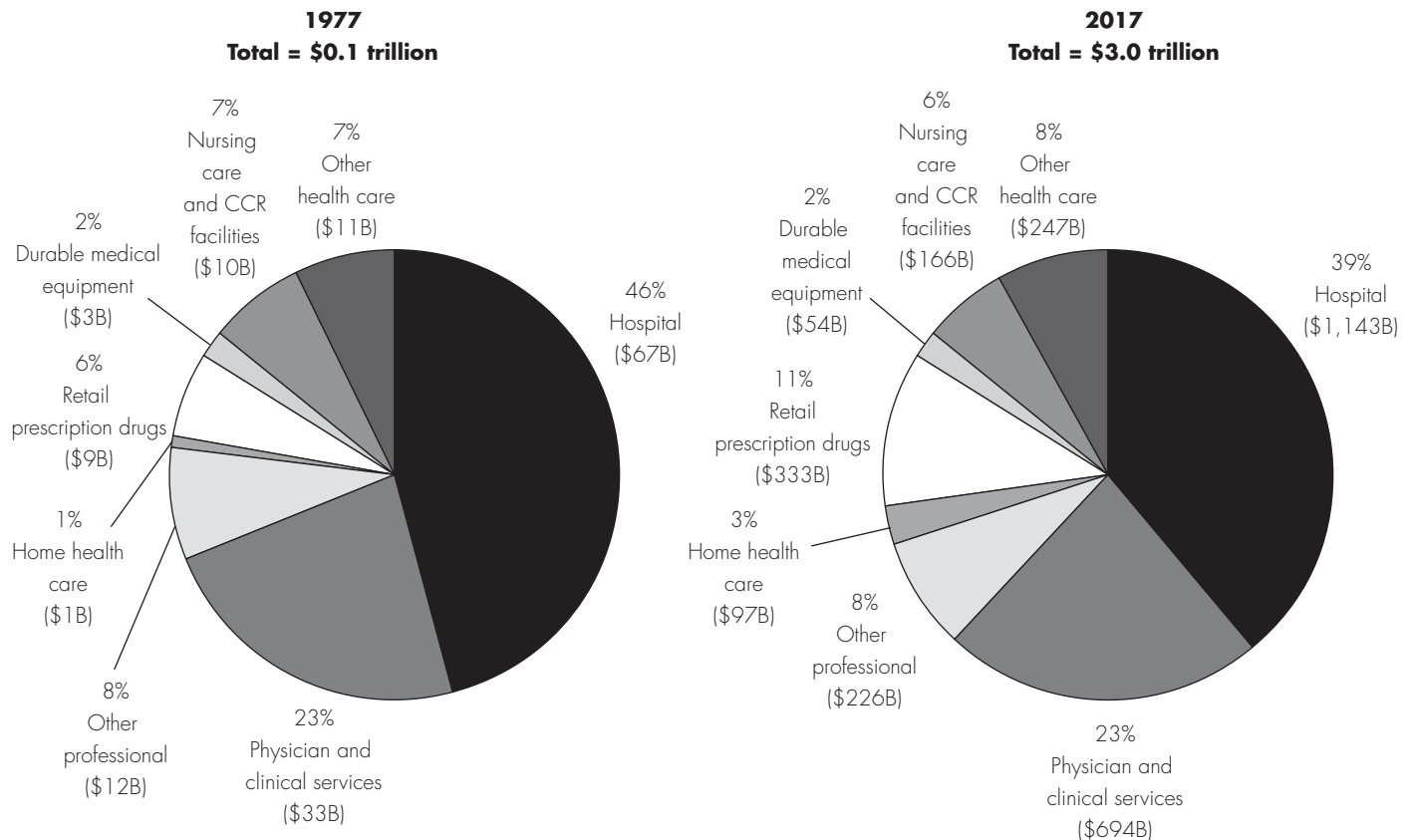
Note: DoD (Department of Defense), VA (Department of Veterans Affairs), B (billion), CHIP (Children's Health Insurance Program). "Personal health care" is a subset of national health expenditures. It includes spending for all medical goods and services that are provided for the treatment of an individual and excludes other spending, such as government administration, the net cost of health insurance, public health, and investment. Spending is in nominal dollars. "Out-of-pocket" spending includes cost sharing for both privately and publicly insured individuals. Only the portion of premiums used to pay for benefits are included in the shares of each program (e.g., Medicare and private insurance) rather than in the out-of-pocket category. "Other third-party payers and programs" includes work-site health care, other private revenues, Indian Health Service, workers' compensation, general assistance, maternal and child health, vocational rehabilitation, other federal programs such as the Substance Abuse and Mental Health Services Administration, other state and local programs, and school health. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of National Health Expenditure Accounts historical data from CMS, released December 2018.

spending categories, the premiums people pay (which have grown over time) are not included in the out-of-pocket (OOP) category but, rather, in the private health insurance and Medicare categories. Second, people receive lower salaries and reduced benefits in exchange for employer-sponsored health insurance (Baicker and Chandra 2006, Gruber 2000, Milusheva and Burtless 2012).

CMS actuaries estimate that, in 2017, Medicare covered about 57 million people and Medicaid covered about 73 million people (Martin et al. 2018). Private health insurance covered 197 million people, and 30 million people were uninsured.

Some people have coverage from more than one source. For example, about 10 million people are dually enrolled in both Medicare and Medicaid (Boards of Trustees 2018). Medicaid pays for either a portion or all of the Medicare premium and OOP health care expenses for those enrollees who qualify for dual enrollment based on limited income and resources. Enrollees in public health insurance programs may also have private health insurance. For example, Medicare beneficiaries typically also have supplemental insurance sold by private companies to pay some of the health care costs that Medicare does not cover, such as copayments, coinsurance, and deductibles.

**FIGURE
1-3****Hospital care and physician and clinical services accounted for the largest shares of personal health care spending in 1977 and 2017**

Note: CCR (continuing care retirement), B (billion). "Personal health care" is a subset of national health expenditures. It includes spending for all medical goods and services that are provided for the treatment of an individual and excludes other spending, such as government administration, the net cost of health insurance, public health, and investment. "Other health care" includes expenditures on nondurable medical products and other health, residential, and personal care. "Other professional" includes expenditures on dental and other professional services. "Nursing care facilities" includes nursing care facilities and continuing care retirement communities. "Hospital" includes all services provided in hospitals to patients: room and board, ancillary services such as operating room fees, inpatient and outpatient care, services of resident physicians, inpatient pharmacy, hospital-based nursing home care, hospital-based home health care, and fees for any other services billed by the hospital, such as hospice. "Physician and clinical services" includes services provided in physician offices, outpatient care centers, and in hospitals, if the physician bills independently for those services, plus the portion of medical laboratories services that are billed independently by the laboratories. Components may not sum to totals due to rounding.

Source: MedPAC analysis of National Health Expenditure Accounts historical data from CMS, released December 2018.

In 2017 as well as in 1977, the largest shares of personal health care spending were for hospital care and physician and clinical services (Figure 1-3). In 2017, hospital care accounted for 39 percent of spending (\$1,143 billion), and physician and clinical services accounted for 23 percent (\$694 billion). Smaller shares went to spending on retail prescription drugs (11 percent, or \$333 billion), nursing care and continuing care retirement (CCR) facilities (6 percent, or \$166 billion), and home health care services (3

percent, or \$97 billion) (see text box on prescription drug spending trends). Between 1977 and 2017, the share of spending on hospital care declined (from 46 percent to 39 percent), while the share of spending for retail prescription drugs increased (from 6 percent to 11 percent) (Centers for Medicare & Medicaid Services 2018a).

In 2017, Medicare accounted for 22 percent of spending for personal health care services (Figure 1-2, p. 9), but

Prescription drug spending trends

Spending on prescription drugs has increased significantly compared with other sectors, nearly doubling as a share of personal health care spending, from 6 percent in 1977 to 11 percent in 2017 (see Figure 1-3).

CMS's Office of the Actuary projects that national spending on prescription drugs will grow faster than spending on other health care goods and services at an average annual rate of 6.3 percent from 2017 to 2026 (Cuckler et al. 2018). The Office explains that "this trend primarily reflects faster anticipated growth in drug prices, which is attributable to a larger share of drug spending being accounted for by specialty drugs over the coming decade." The American Academy of Actuaries attributes prescription drugs spending growth to both price and utilization, specifically driven by "delays in introducing generics, higher cost inflation in the United States for pharmaceuticals relative to other nations, and the compensation of numerous stakeholders throughout the pharmacy supply chain" (Hanna and Uccello 2018).

In 2016, across all payers, retail drug spending made up 10 percent of all national health expenditures

(Martin et al. 2018). However, retail drugs made up a greater share of all Medicare spending—14 percent. Medicare's retail spending in 2016 reflects Part D program spending and prescription drugs billed separately under Part B.

The Commission developed estimates of Medicare drug spending that include not only retail drug spending, which is the typical metric used to describe the magnitude of drug spending, but also spending for drugs and pharmacy services used as inputs at health care facilities, which is not typically included in measures of drug spending. These estimates are based on Medicare cost reports, Medicare claims, and estimates of program spending from the Trustees reports. Ultimately, the estimates are all in terms of what the Medicare program paid. In comparison with Medicare's retail spending, the Commission estimates that, in 2016, *total* drug and pharmacy services, including those provided at health care facilities, accounted for 23 percent of total Medicare spending (excluding beneficiary cost sharing). That total share was 20 percent in 2007. ■

its share varied by type of service, with a slightly higher share of spending on hospital care (25 percent) and retail prescription drugs (30 percent) and a much higher share of spending on home health services (40 percent) (Figure 1-4, p. 12). Medicare's share of spending on nursing care facilities was smaller than Medicaid's share because Medicare's benefit pays for skilled nursing or rehabilitation services only, whereas Medicaid pays for custodial care (assistance with activities of daily living) provided in nursing homes for people with limited income and assets. Medicare's share of spending varies for other service categories included in personal health care that are not shown in Figure 1-4, namely, other professional services; dental services; other health, residential, and personal care; and other nondurable medical equipment.

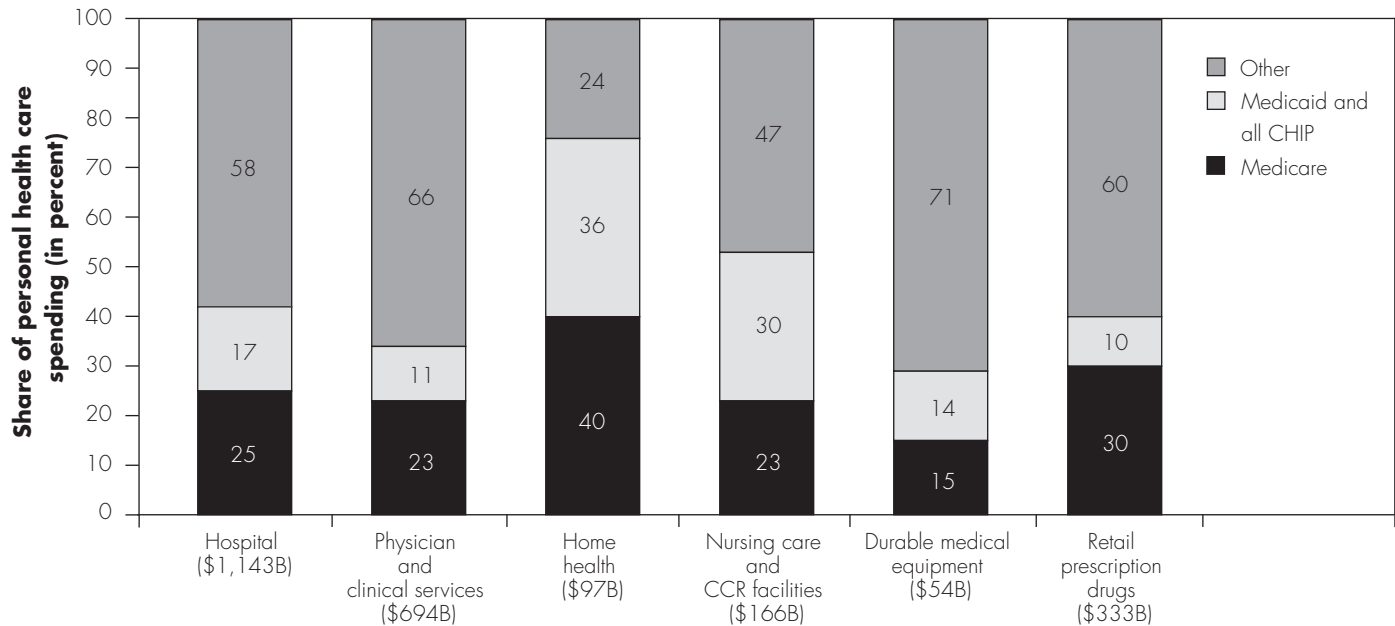
Medicare spending

Medicare spending can be divided into three program components: the traditional fee-for-service (FFS) program, the Medicare Advantage (MA) program, and the Part D prescription drug program.

- **Medicare's traditional FFS program.** In FFS, Medicare pays health care providers directly for health care goods and services furnished to FFS Medicare beneficiaries at prices set through legislation and regulation. In 2017, Medicare spent \$394 billion, or \$10,206 per beneficiary in traditional FFS (Boards of Trustees 2018).

FIGURE 1-4

Medicare's share of spending on personal health care varied by type of service, 2017



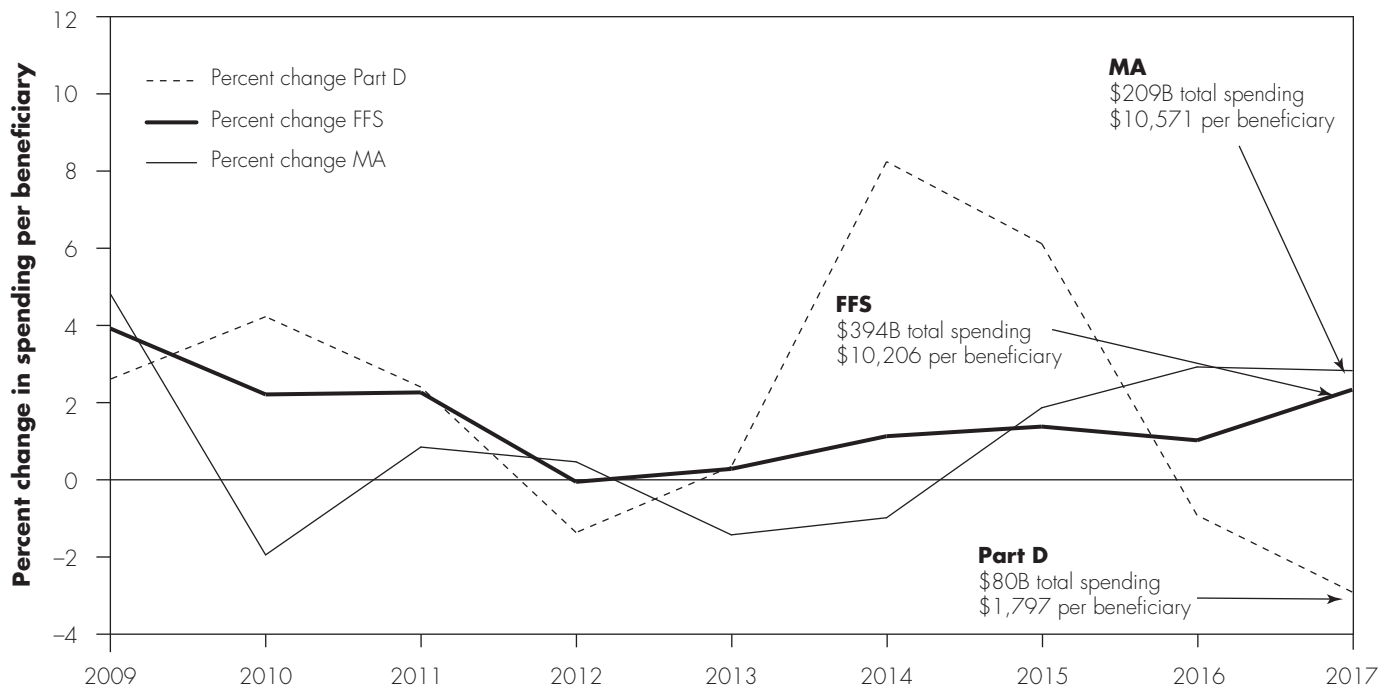
Note: CHIP (Children's Health Insurance Program), B (billion), CCR (continuing care retirement). "Personal health care" is a subset of national health expenditures. It includes spending for all medical goods and services that are provided for the treatment of an individual and excludes other spending such as government administration, the net cost of health insurance, public health, and investment. "Hospital" includes all services provided in hospitals to patients: room and board, ancillary services such as operating room fees, inpatient and outpatient care, services of resident physicians, inpatient pharmacy, hospital-based nursing home care, hospital-based home health care, and fees for any other services billed by the hospital, such as hospice. "Physician and clinical services" includes services provided in physician offices, outpatient care centers, and in hospitals, if the physician bills independently for those services, plus the portion of medical laboratories services that are billed independently by the laboratories. "Nursing care and CCR facilities" includes freestanding facilities primarily engaged in providing inpatient nursing, rehabilitative, and continuous personal care services to persons requiring nursing care and continuing-care retirement communities with on-site nursing care facilities. "Other" includes private health insurance, out-of-pocket spending, and other private and public spending. Other service categories included in personal health care that are not shown here include other professional services; dental services; other health, residential, and personal care; and other nondurable medical equipment.

Source: MedPAC analysis of National Health Expenditure Accounts from CMS, historical data released December 2018.

- **MA program.** Beneficiaries can choose, as an alternative to FFS, to enroll in MA, which consists of private health plans that receive capitated payments (or per enrollee payments) for providing health care coverage for enrollees. MA plans pay health care providers for health care goods and services furnished to their enrollees at prices negotiated between the plans and providers. In 2017, Medicare spent \$209 billion, or \$10,571 per beneficiary in MA.
- **Medicare Part D prescription drug program.** Through Part D, beneficiaries can obtain subsidized prescription drug coverage by voluntarily purchasing

insurance policies from private stand-alone drug plans or MA prescription drug plans. Medicare heavily subsidizes the premiums established by those plans. In 2017, Medicare spent \$80 billion, net of Part D premiums (mostly premiums paid by beneficiaries), or \$1,797 per beneficiary in Part D.

Growth in per beneficiary spending tends to differ across the three program components. From 2009 to 2013, growth was fairly slow across all three (Figure 1-5). More mixed trends emerged between 2013 and 2017. The lower growth rates were generally because of decreased use of health care services and restrained payment rate increases.

**FIGURE
1–5****Growth in per beneficiary Medicare spending was slow between 2009 and 2013 and mixed between 2013 and 2017**

Note: FFS (fee-for-service), MA (Medicare Advantage), B (billion). Spending is on an incurred basis. Part D spending excludes total premiums paid to Part D plans by enrollees. We calculate per beneficiary spending by dividing total spending for each category reported in the Trustees report by the appropriate enrollment number (i.e., for Part A, Part B, or Part D) reported in the Trustees report.

Source: MedPAC analysis of data from the 2018 annual report of the Boards of Trustees of the Medicare trust funds.

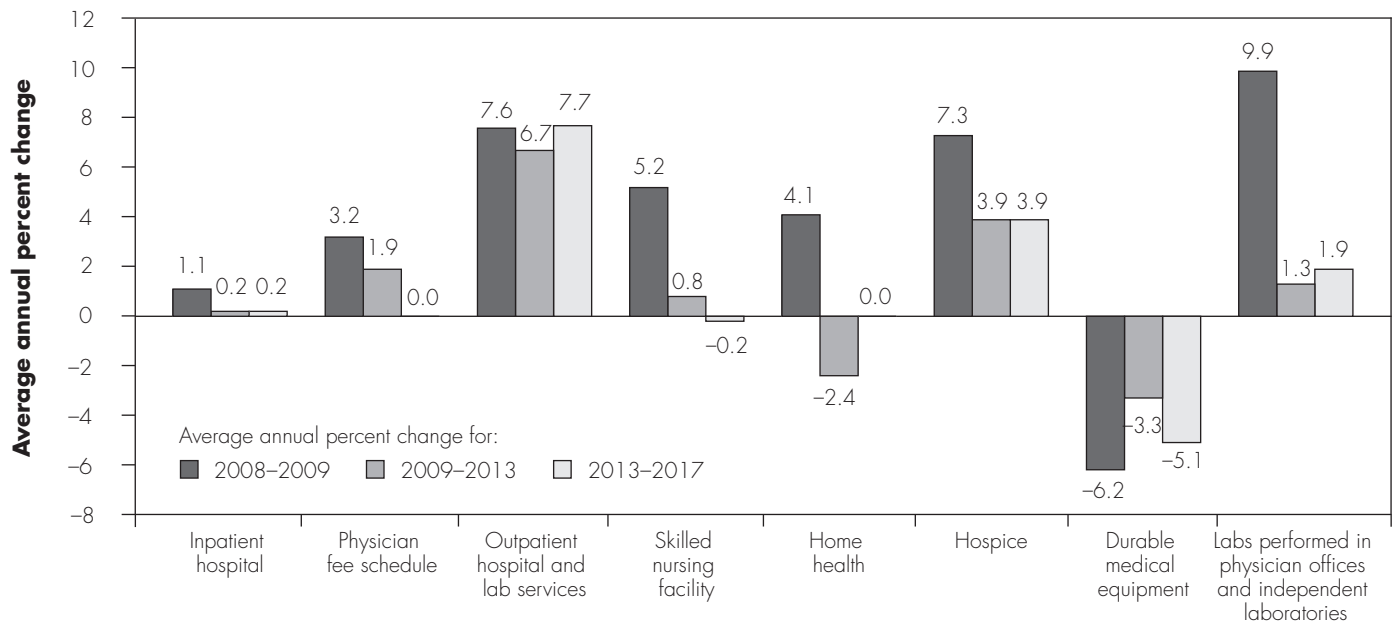
From 2013 to 2017, FFS per beneficiary spending growth averaged 1.5 percent annually. PPACA lowered payment rate updates in FFS for many types of providers (other than physicians) beginning in 2011. However, beginning in 2014, FFS spending gradually grew because of an increase in per beneficiary spending on a wide range of outpatient services, including services received in hospital outpatient departments and physician services.

From 2013 to 2017, MA per beneficiary spending growth averaged 1.6 percent annually. Historically, Medicare generally has spent more for a beneficiary enrolled in MA than if that same beneficiary had been enrolled in FFS. To bring payments more in line with FFS, PPACA began lowering payments to plans in 2011. MA's growth rate would therefore have been lower, but the PPACA payment reductions were offset somewhat by quality bonus

payments and plans' increased coding of beneficiaries' medical conditions (payments to MA plans are higher when beneficiaries have more medical conditions, all other things being equal).

Part D per beneficiary spending growth has fluctuated the most of the three program components over the past decade. However, from 2010 to 2013, average per beneficiary spending was somewhat constant, growing from \$1,605 to \$1,626 per year.³ The low growth for those years was in part due to the increase in low-priced generic drugs on the market and plans' efforts to encourage beneficiaries to use generics and other low-priced drugs.

However, in both 2014 and 2015, per beneficiary spending growth in excess of 6 percent caused Part D spending to spike to \$1,868 per beneficiary. Increased spending on

**FIGURE
1-6****Per beneficiary FFS spending growth remained high in some settings despite 2009–2013 slowdown in growth of health care spending, 2008–2017**

Note: FFS (fee-for-service). We calculate per beneficiary spending by dividing total spending for each category reported in the Trustees report by the appropriate enrollment number (i.e., for Part A, Part B, or Part D) reported in the Trustees report. Outpatient hospital services and outpatient lab services are combined in the figure because a large portion of outpatient laboratory services were bundled into the outpatient prospective payment system effective January 1, 2014.

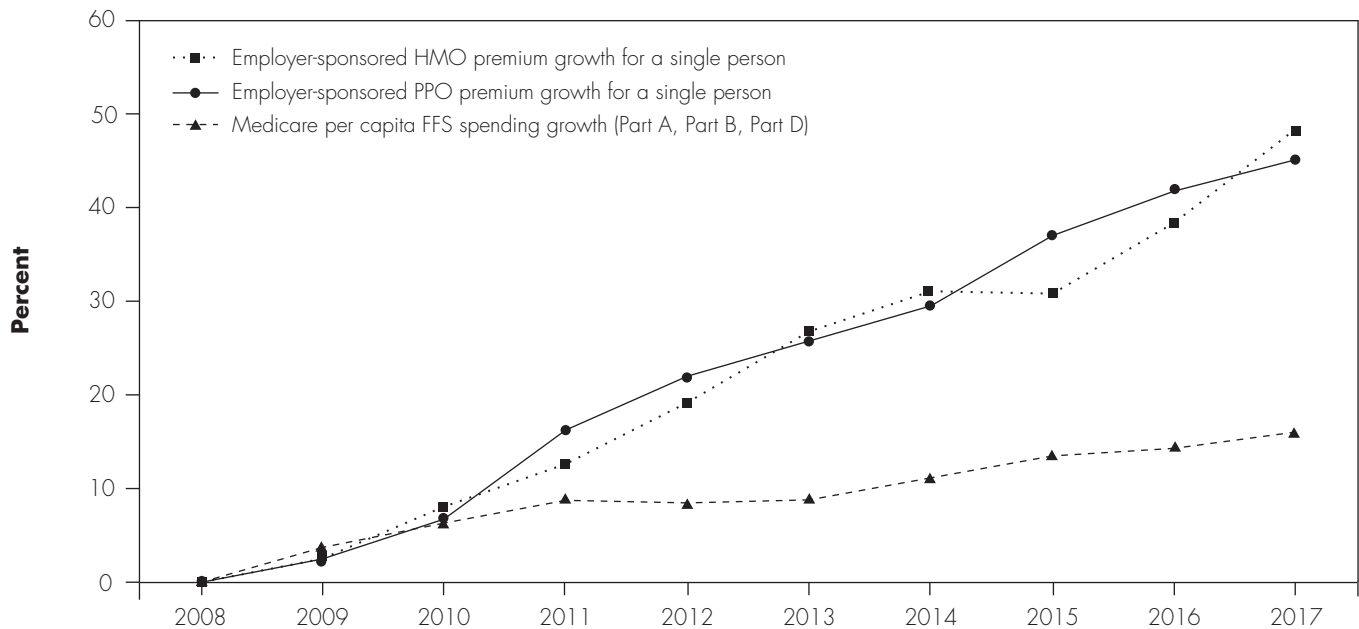
Source: MedPAC analysis of data from the 2018 annual report of the Boards of Trustees of the Medicare trust funds.

high-priced specialty drugs to treat hepatitis C mainly accounts for this jump. After the high spending of 2015, the surge of hepatitis C drug spending tapered off while Part D enrollment continued to grow, which contributed to per Part D enrollee spending declining by 1.9 percent per year to \$1,797 by 2017 (Boards of Trustees 2018, Boards of Trustees 2017). The Medicare Trustees project the annual growth in per beneficiary Part D spending from 2018 to 2026 to remain higher than growth in other categories of spending, averaging 3.9 percent per year (Boards of Trustees 2018).

Figure 1-6 provides a more detailed look at FFS spending growth over the past decade. Generally, all settings experienced a slowdown in per beneficiary spending growth; however, the impact was not uniform. For example, for inpatient hospital care, the average annual growth in per beneficiary spending fell from 1.1 percent in

the period from 2008 to 2009 to 0.2 percent in the period from 2009 to 2017. Even the fastest growing categories experienced some reductions. For example, the average annual per beneficiary spending growth in outpatient hospital and lab services was lower between 2009 and 2013 (6.7 percent) than between 2008 and 2009 (7.6 percent) but bounced back to 7.7 percent between 2013 and 2017 annually, in part because of shifts in site of care from both the inpatient hospital setting and physician offices to the outpatient hospital setting.⁴ As a reference point, average annual growth in GDP between 2008 and 2017 was about 3.1 percent (data not shown).

Despite the recent slowing of growth rates, cumulative growth in per beneficiary FFS spending over the past decade has increased in almost all settings and increased substantially in some settings. Per beneficiary spending on outpatient hospital and lab services, hospice, and

**FIGURE
1-7****Cost of employer-sponsored commercial insurance has grown more than twice as fast as Medicare costs, 2008-2017**

Note: HMO (health maintenance organization), PPO (preferred provider organization), FFS (fee-for-service). Medicare spending is reported including the effects of the sequester, which reduced program spending for most benefits by 2 percent beginning in 2013.

Source: Employer-sponsored premium data from Kaiser Family Foundation surveys, 2007 through 2017. Medicare spending figures from MedPAC analysis of data from the 2018 annual report of the Boards of Trustees of the Medicare trust funds.

labs performed in physician offices and independent laboratories all grew faster than per capita GDP. In contrast, during this time, per beneficiary spending on durable medical equipment fell by an average of 4.4 percent per year. That decline was primarily due to the phasing in of a competitive bidding program for durable medical equipment in which suppliers submit bids to provide services to beneficiaries.

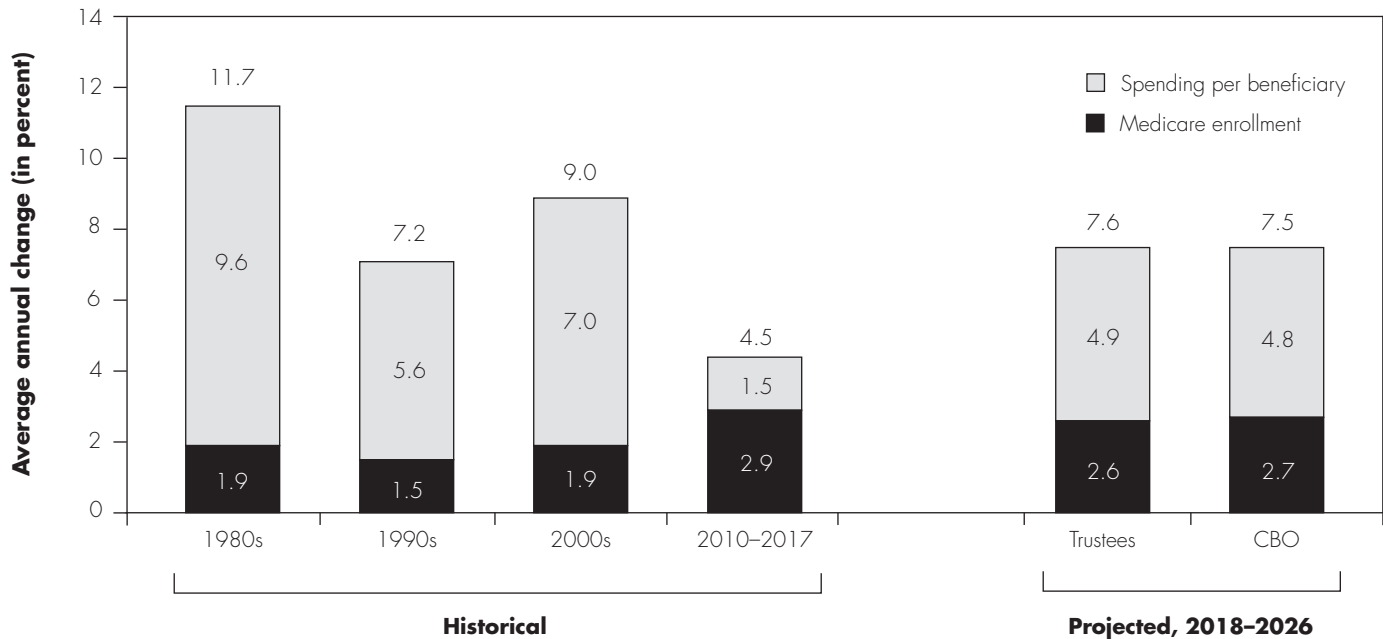
Prior Commission reports have explored the relationship between inpatient, outpatient, and physician services and found that growth in outpatient services in part reflects hospitals purchasing freestanding physician practices and billing these services through the higher paying hospital outpatient prospective payment system (Martin et al. 2018, Medicare Payment Advisory Commission 2015, Medicare Payment Advisory Commission 2014b, Medicare Payment Advisory Commission 2013, Medicare Payment Advisory Commission 2012).

Comparison of private sector and Medicare spending trends

From 2010 to 2016, per capita spending on health care in the private sector grew (Centers for Medicare & Medicaid Services 2018a). Increased prices were largely responsible for spending growth, which occurred despite a decline in service use (Health Care Cost Institute 2018, Health Care Cost Institute 2016, Health Care Cost Institute 2015). One key driver of the private sector's higher prices was provider market power (Baker et al. 2014a, Baker et al. 2014b, Cooper et al. 2018, Gaynor and Town 2012, Medicare Payment Advisory Commission 2017, Robinson and Miller 2014, Scheffler et al. 2018). Hospitals and physician groups have increasingly consolidated, in part to gain leverage over insurers in negotiating higher payment rates. For the private sector, that consolidation contributed to per capita spending growth from 2010 to 2016 of 3.7 percent annually. By comparison, over that

**FIGURE
1-8**

Despite recent slowdown in per beneficiary spending growth, total Medicare spending growth rate is projected to rise



Note: CBO (Congressional Budget Office). Components of average annual changes may not sum to totals due to rounding. Trustees numbers are reported by calendar year; CBO numbers are reported by fiscal year.

Source: 2018 annual report of the Boards of Trustees of the Medicare trust funds and CBO's Medicare April 2018 baseline.

same period, Medicare spending per beneficiary increased by 1.4 percent annually (Centers for Medicare & Medicaid Services 2018a). This difference suggests that the effectiveness of the tools private plans have to constrain service use has been counteracted by the higher prices plans pay relative to the lower Medicare payment rates under its administered pricing system.

On average, since 2008, commercial insurance prices have grown faster than Medicare's prices (Health Care Cost Institute 2016, Medicare Payment Advisory Commission 2017). The faster growth in provider prices from 2008 to 2017 contributed to HMO premiums for a single person growing by 48 percent and preferred provider organization premiums for a single person by 45 percent (Figure 1-7, p. 15).

To compare employer-sponsored plans' premium growth with Medicare cost growth, we examined per capita spending for beneficiaries with FFS Medicare, including

per capita spending on Part A, Part B, and Part D. Over the period from 2008 to 2017, combined Medicare per capita costs grew by about 16 percent. If FFS Medicare spending had followed growth in commercial pricing, Medicare costs would have grown substantially more.

Regulators and researchers have noted concerns about increased consolidations and their effect on prices. In 2015, the number of hospital mergers increased 18 percent from the prior year and 70 percent from 2010 (Ellison 2016). Consolidation of clinician practices has also increased; a study of available data found a 47 percent jump from 2014 (Irving Levin Associates Inc. 2016). The American Medical Association's survey of physicians indicates that, over time, physicians have shifted from solo and small practices to larger practices (Kane 2015). The Government Accountability Office (GAO) found that, between 2007 and 2013, the number of physicians in "vertically consolidated" practices—hospital-acquired physician practices, physicians hired as

salaried employees, or both—nearly doubled (Government Accountability Office 2015). In addition, the Federal Trade Commission observed that “providers increasingly pursue alternatives to traditional mergers such as affiliation arrangements, joint ventures, and partnerships, all of which could also have significant implications for competition” (Federal Trade Commission 2016). Increased consolidation has an inflationary effect on prices paid in the private sector. A recent study found that disparity in hospital prices within regions is the primary driver of variation in health care spending for the privately insured (Cooper et al. 2015). The study shows that hospitals that face fewer competitors have substantially higher prices; hospital prices in monopoly markets are more than 15 percent higher than those in areas with four or more competitors. It also found that, where hospitals face only one competitor, prices are over 6 percent higher; where they face two, almost 5 percent higher.

In recent work on the effect of provider consolidation on private prices and the pressure that has created for Medicare to increase FFS payment rates (Medicare Payment Advisory Commission 2017), the Commission presented the following key findings:

- Markets with greater physician practice consolidation have had greater increases in physician prices.
- Commercial insurers pay small independent physician practices at rates similar to Medicare for standard office visits. However, physicians in large practices and hospital-affiliated practices (who have stronger market power) receive higher rates from insurers for those visits.
- Commercial insurers also pay higher rates to hospitals with greater market power. Gaynor and colleagues report that “mergers between rival hospitals are likely to raise the price of inpatient care and these effects are larger in concentrated markets. The estimated magnitudes are heterogeneous and differ across market settings, hospitals, and insurers” (Gaynor et al. 2014).
- Commercial prices vary widely by individual hospital and individual insurer. On average, commercial prices are about 50 percent higher than average hospital costs and are often far more than 50 percent above Medicare payment rates (Congressional Budget Office 2016a, Cooper et al. 2015, Health Care Cost Institute 2014, Medicare Payment Advisory Commission 2014a, Selden et al. 2015).

The Commission is concerned that these market concentration effects will lead to higher Medicare spending if commercial prices are “imported” into Medicare. The Commission has tried to counteract these effects by recommending restrained payment updates and by recommending site-neutral payments (paying the same for a service regardless of the setting of care). Medicare beneficiaries have robust access to hospital and physician services in most markets. And with respect to hospital services, given the low occupancy rates and the marginal profits of taking a Medicare patient, access to care is unlikely to be of concern in the near term (Medicare Payment Advisory Commission 2017).

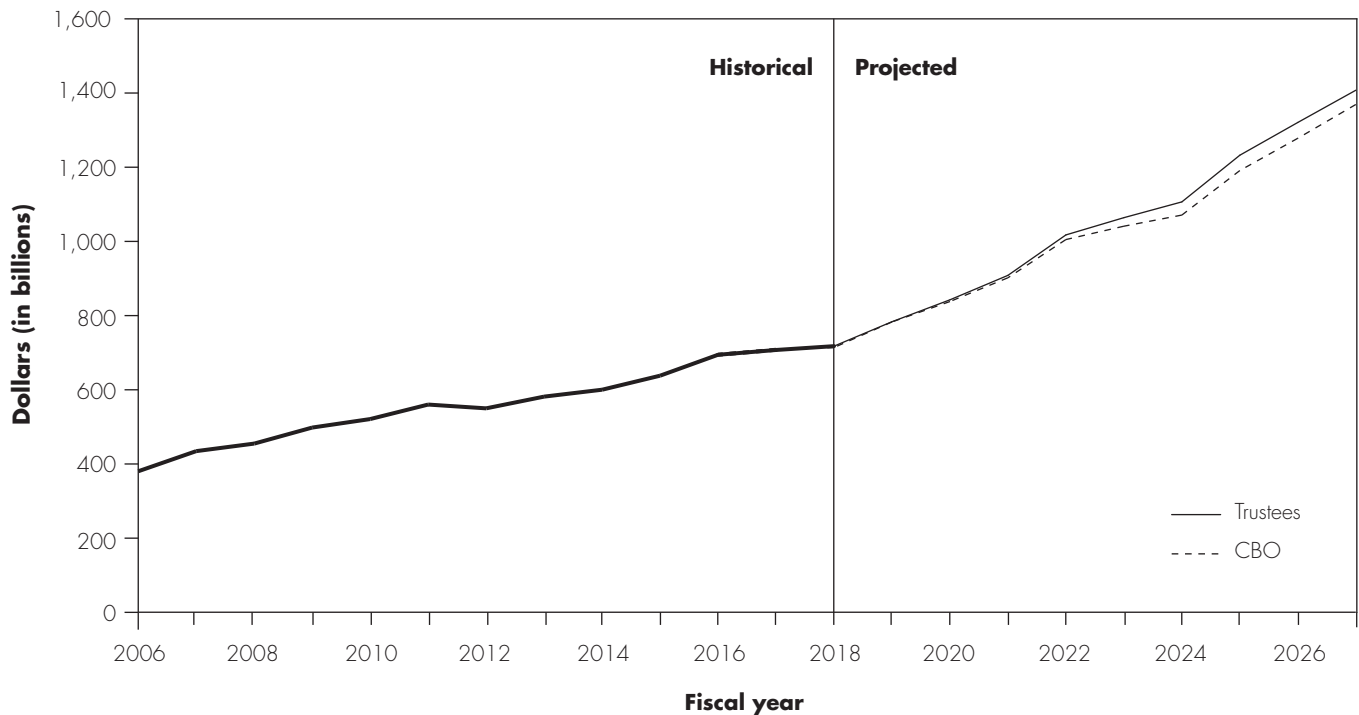
Over time, private sector trends can influence Medicare trends. If the private sector is unable to constrain price growth, the profitability of caring for commercially insured patients will increase relative to the profitability of caring for Medicare beneficiaries. Eventually, the difference between commercial rates and Medicare rates will grow so large that more hospitals would have an incentive to focus primarily on patients with commercial insurance, which will exert pressure on the Medicare program to increase its payment rates. Thus, in the long term, Medicare beneficiaries’ access to care may in part depend on commercial payers restraining rates paid to hospitals (Medicare Payment Advisory Commission 2009, Stensland et al. 2010, White and Wu 2014).

Medicare spending projections

What do these current trends portend for Medicare? The growth in Medicare’s per beneficiary spending has fallen from average annual rates of 9.6 percent in the 1980s and 5.6 percent and 7.0 percent in the 1990s and 2000s (respectively) to 1.5 percent over the past seven years (Figure 1-8).

For the next 10 years, the Trustees and the Congressional Budget Office (CBO) project that growth in per beneficiary spending will be higher than the recent lows but lower than the historical highs, with an average annual growth rate of almost 5 percent (Boards of Trustees 2018, Congressional Budget Office 2018b).

At the same time, the aging of the baby-boom generation is continuing to boost enrollment. Since 2010, the enrollment growth rate rose from about 2 percent per year historically to almost 3 percent and is projected to continue growing faster than historical rates throughout the next decade. So, despite the slowdown in spending

**FIGURE
1-9****Trustees and CBO project Medicare annual spending
to exceed \$1 trillion by fiscal year 2022**

Note: CBO (Congressional Budget Office).

Source: 2018 annual report of the Boards of Trustees of the Medicare trust funds and CBO's Medicare April 2018 baseline.

per beneficiary (relative to historical standards), growth in total spending over the next decade is projected by the Trustees and CBO to average about 7.5 percent annually, which outpaces the projected average annual GDP growth of about 4 percent. At those rates, Medicare annual spending would rise from \$707 billion in fiscal year 2017 to \$1 trillion by fiscal year 2022 under either projection (Figure 1-9) (Boards of Trustees 2018, Congressional Budget Office 2018a).

Medicare's financing challenge

The aging of the baby-boom generation will have a profound impact both on the Medicare program and on the taxpayers who support it. Workers pay for the Medicare program through payroll taxes and taxes that

are deposited into the general fund of the Treasury. The number of workers per Medicare beneficiary has already declined from about 4.6 around the program's inception to 3.0 in 2018 (Figure 1-10). Over the next dozen years, as Medicare enrollment surges, the number of workers per beneficiary is projected to decline further. By 2029, the Medicare Trustees project just 2.4 workers for each Medicare beneficiary.⁵

These demographics create a financing challenge for the Medicare program. Since payroll tax revenues are not growing as fast as Part A spending, the Trustees project that Medicare's Hospital Insurance (HI) Trust Fund will become depleted and unable to pay its bills in full by 2026—three years earlier than predicted in the 2017 report—but that date does not tell the whole story (Boards of Trustees 2018). The HI Trust Fund covers less than half of Medicare spending (42 percent in 2017), and that share

FIGURE 1-10

Medicare enrollment is rising while number of workers per HI beneficiary is declining

Figure 1-10a. Medicare HI enrollment

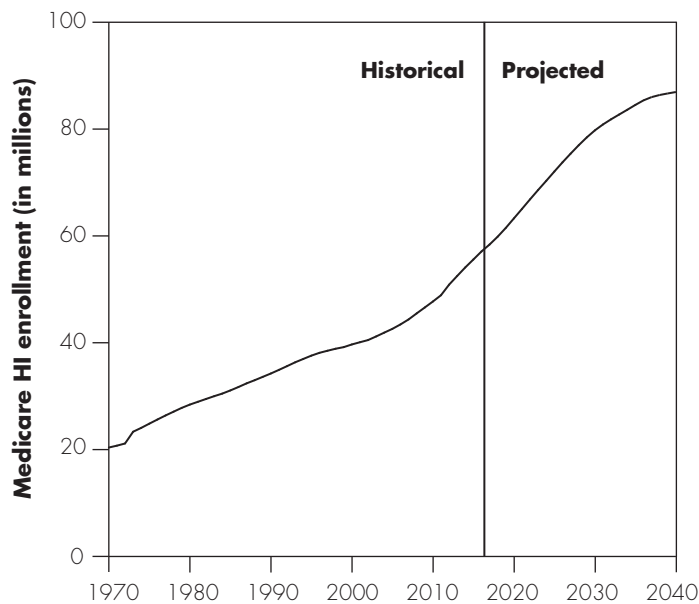
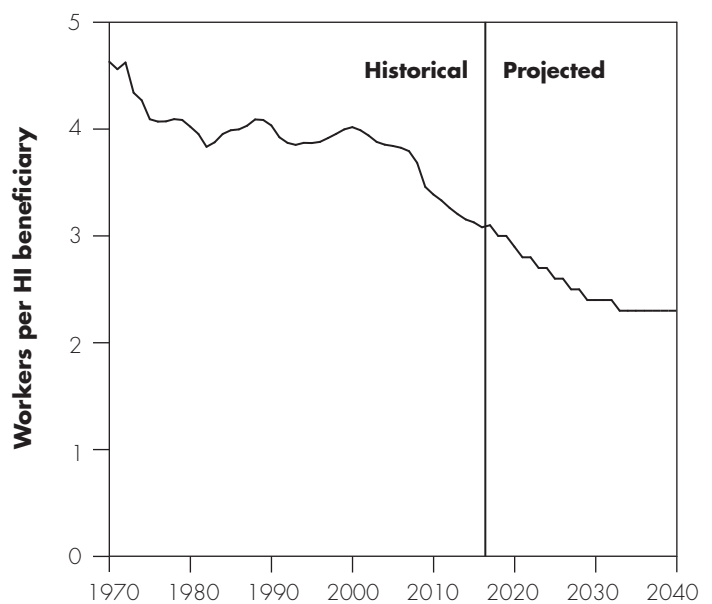


Figure 1-10b. Workers per HI beneficiary



Note: HI (Hospital Insurance). Hospital Insurance is also known as Medicare Part A.

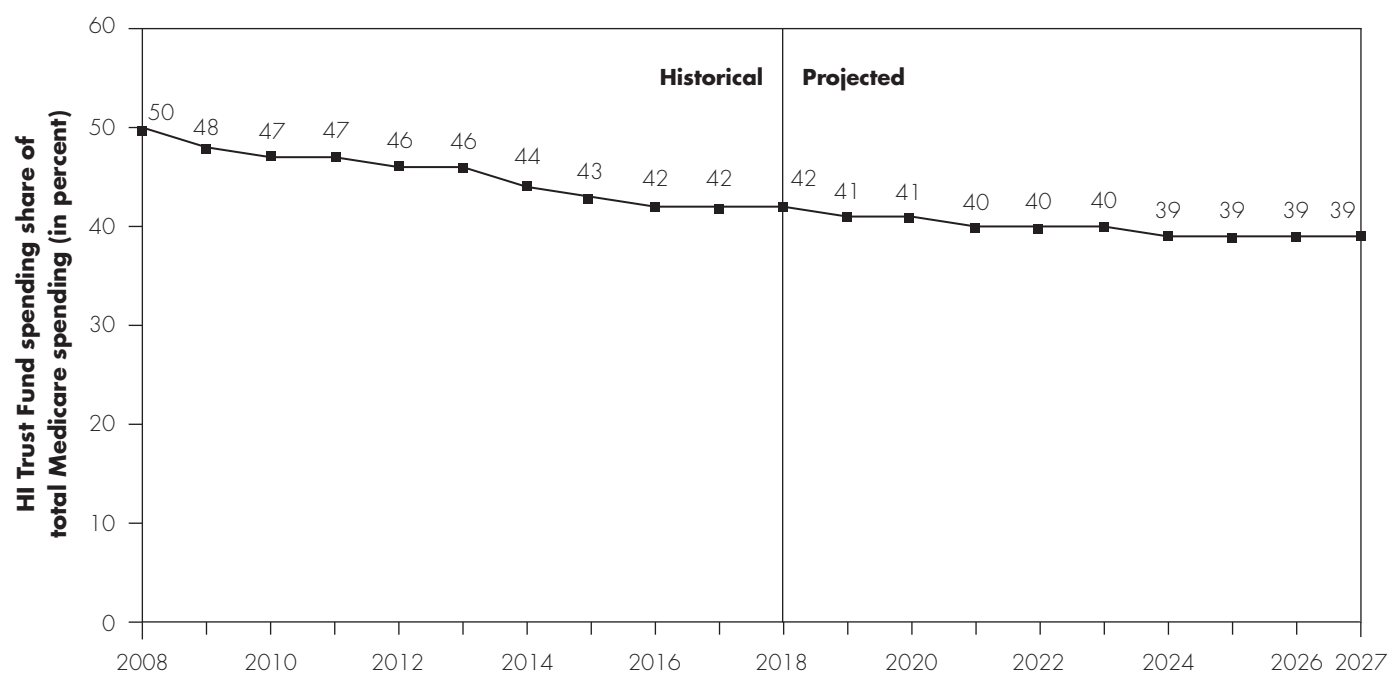
Source: 2018 annual report by the Boards of Trustees of the Medicare trust funds.

is projected to fall to 39 percent by 2024 (Figure 1-11, p. 20). The Supplementary Medical Insurance (SMI) Trust Fund covers the remainder. The HI Trust Fund pays for Medicare Part A services, such as inpatient hospital stays, skilled nursing facilities, and hospice, and is largely (87 percent in 2017) funded through a dedicated payroll tax (i.e., a tax on wage earnings).⁶

To keep the HI Trust Fund solvent over the next 25 years, the Trustees estimate that either the payroll tax would need to be increased immediately by 24 percent, rising from its current rate of 2.90 percent to 3.61 percent, or Part A spending would need to be reduced immediately by 16 percent (Boards of Trustees 2018).⁷ (For projection periods of 50 years and 75 years, see Table 1-1, p. 20.) Under current law, once the HI Trust Fund is depleted, payments to providers would be reduced to levels that could be covered by incoming tax and premium revenues. However, the Trustees note that:

If the projections reflected such payment reductions, then any imbalances between payments and revenues would be automatically eliminated, and the [Trustees] report would not serve its essential purpose, which is to inform policymakers and the public about the size of any trust fund deficits that would need to be resolved to avert program insolvency. To date, lawmakers have never allowed the assets of the Medicare HI Trust Fund to become depleted (Boards of Trustees 2018).

The rest of Medicare benefit spending is covered by SMI. It covers services under Part B (physician services and other ambulatory care received in hospital outpatient departments) and Part D (prescription drug coverage). SMI is a trust fund in name only; it is not funded exclusively through dedicated taxes like the HI Trust Fund is. Specifically, Part B and Part D are financed by premiums

**FIGURE
1-11****The HI Trust Fund covers a declining share of total Medicare spending**

Note: HI (Hospital Insurance). Hospital Insurance is also known as Medicare Part A. The rest of Medicare spending is covered by the Supplementary Medical Insurance Trust Fund, which comprises Part B and Part D.

Source: 2018 annual report of the Boards of Trustees of the Medicare trust funds.

paid by beneficiaries (covering 25 percent of spending) and general tax revenues plus federal borrowing (covering 75 percent of spending), which are reset each year to match expected Part B and Part D spending.⁸

Since premiums and transfers are set to grow at the same rate as Part B and Part D spending, the SMI Trust Fund is expected to remain solvent by construction. However,

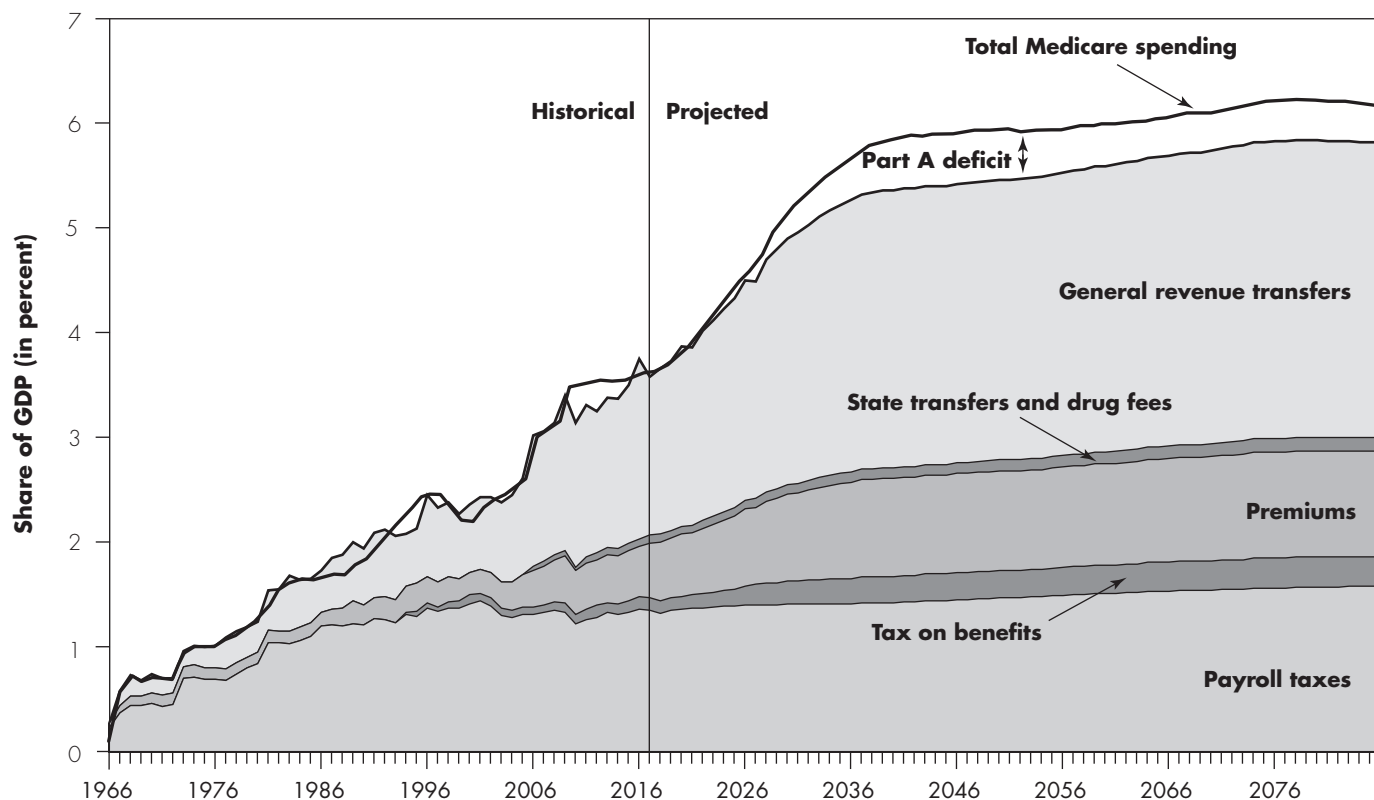
as SMI spending rises, premiums and transfers from the nation's Treasury to the Medicare program also grow, increasing deficits, the debt, and the strain on household budgets both of workers and retirees, and—assuming no other policy or legislative interventions—reducing the resources available to make investments that expand future economic output (e.g., investments in education, transportation, and research and development).

**TABLE
1-1****Increase in payroll tax or decrease in HI spending needed to maintain HI Trust Fund solvency for specific time periods**

To maintain HI Trust Fund solvency for:	Increase 2.9 percent payroll tax by:	Or decrease HI spending by:
25 years (2018–2042)	24%	16%
50 years (2018–2067)	28	18
75 years (2018–2092)	28	17

Note: HI (Hospital Insurance). Hospital Insurance is also known as Medicare Part A.

Source: MedPAC summary of 2018 annual report of the Boards of Trustees of the Medicare trust funds.

**FIGURE
1-12****General revenue is paying for a growing share of Medicare spending**

Note: GDP (gross domestic product). These projections are based on the Trustees intermediate set of assumptions. "Tax on benefits" refers to the portion of income taxes that higher income individuals pay on Social Security benefits that is designated for Medicare. "State transfers" (often called the Part D "clawback") refers to payments from the states to Medicare, required by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, for assuming primary responsibility for prescription drug spending. "Drug fees" refers to the fee imposed by the Patient Protection and Affordable Care Act of 2010 on manufacturers and importers of brand-name prescription drugs. These fees are deposited in the Part B account of the Supplementary Medical Insurance Trust Fund.

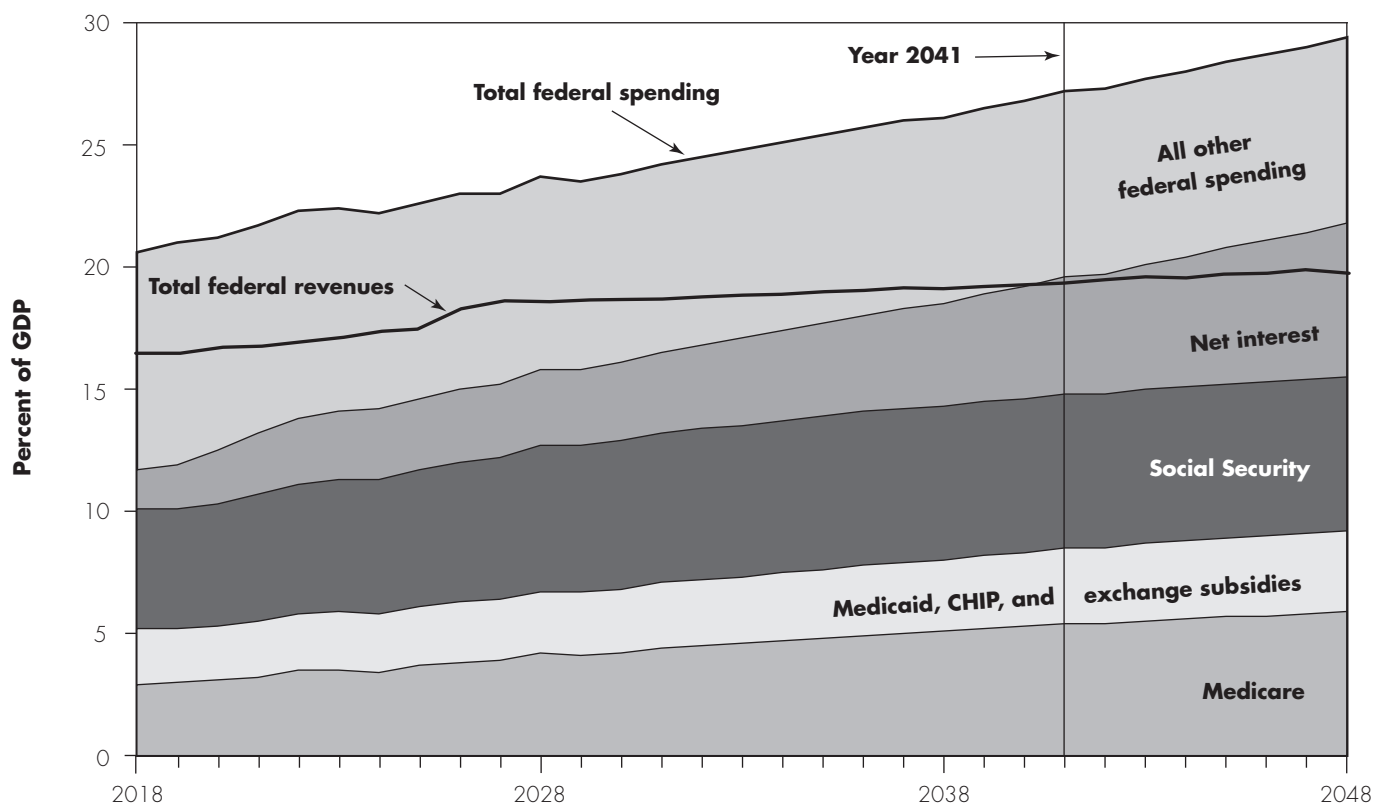
Source: 2018 annual report of the Boards of Trustees of the Medicare trust funds.

For a more complete financial picture, consider the combined spending and sources of income from the two trust funds. The top line of Figure 1-12 depicts total Medicare spending as a share of GDP; the layers below the line represent sources of Medicare income. Medicare's three primary sources of income are payroll taxes, premiums paid by beneficiaries, and general revenue transfers. The white space below the total Medicare spending line in Figure 1-12 represents the Part A deficit created when payroll taxes fall short of Part A spending. Figure 1-12 reflects projections in the Medicare Trustees report, which are based on current law with the exception of disregarding payment reductions that would result from the projected depletion of the HI Trust Fund. Under

current law, payments to Part A providers would be reduced to levels that could be covered by incoming tax and premium revenues when the HI Trust Fund becomes depleted. Thus, as Medicare actuaries and others have observed, total Medicare spending would be shifted down from the total projected spending by an amount equal to the Part A deficit (Aaron 2015, Spitalnic 2016). As noted by the actuaries, if the projections reflected such payment reductions, any imbalances between payments and revenues would be automatically eliminated. To date, lawmakers have never allowed the assets of the Medicare HI Trust Fund to become depleted (Boards of Trustees 2018).

**FIGURE
1-13**

Spending on Medicare, other major health programs, Social Security, and net interest is projected to exceed total federal revenues by 2041



Note: GDP (gross domestic product), CHIP (Children's Health Insurance Program).

Source: *The 2018 Long-Term Budget Outlook* (published June 2018) from the Congressional Budget Office.

Undeniably, the Part A deficit is a financing challenge, but so too is the large and growing share of Medicare spending funded through general revenues. General revenues account for 43 percent of Medicare funding today and, under current law, are projected to grow to 48 percent by 2030; notably, in this context, general revenues include both general tax revenue as well as federal borrowing since, with few exceptions, federal spending has exceeded federal revenues since the Great Depression.

To understand why the growing reliance on general revenues presents a financing challenge, consider the situation from the perspective of the federal budget. The line at the top of Figure 1-13 represents total federal spending as a share of GDP; the line below spending represents total federal revenues. The difference between these two lines represents the budget deficit, which

must be covered by federal borrowing. For most years over the past several decades, the federal government has spent more than it collects in revenues, increasing the federal debt to levels not seen since World War II. Federal revenues have remained relatively constant even though the federal government has taken responsibility for a broader array of services (e.g., the Children's Health Insurance Program).

The layers below the top line in Figure 1-13 depict federal spending by program. Under current law, Medicare spending is projected to rise from 2.9 percent of our economy in 2018 to about 6 percent of our economy in 2048 (Congressional Budget Office 2018a).⁹ In fact—assuming no other policy or legislative interventions—spending on Medicare, Medicaid, the other major health programs, Social Security, and net interest payments

are projected to reach almost 20 percent of the nation's economy by 2041 and, by themselves, will exceed total federal revenues.¹⁰

Moreover, the projection assumes that federal revenues will rise above 19 percent of GDP, above the historical average of 17 percent of GDP. The increase in revenues is projected to occur mainly because income is projected to grow more rapidly than inflation, pushing more income into higher inflation-indexed tax brackets over time. However, if federal revenues continue at their historical average of 17 percent of GDP, spending on these major programs and net interest payments would exceed total federal revenues even sooner.

The trends shown in Figure 1-13 reflect CBO's budget projections based on the Tax Cuts and Jobs Act of 2017. According to CBO, the Act will increase the total projected deficit over the 2018 to 2028 period by about \$1.9 trillion, primarily because of reduced federal revenues (Congressional Budget Office 2018b). A temporary spending bill waived the 2010 "pay-as-you-go" law or PAYGO requirement that would have triggered an automatic spending cut to Medicare. However, reduced revenues and an increased deficit will intensify pressure on policymakers to slow the growth of Medicare and other federal spending.

The Tax Cuts and Jobs Act temporarily reduced individual income taxes beginning in 2018. Thus, as Medicare (and other federal) spending continues to grow, federal revenues are projected to be roughly flat over the next few years relative to GDP, averaging 16.9 percent from 2018 to 2025. Revenues are projected to increase in 2026 because most of the provisions of the Tax Cuts and Jobs Act that directly affect the individual income tax rate are set to expire at the end of calendar year 2025. Subsequently, revenues are projected to continue to rise relative to GDP, although still at a lower rate than spending growth (Congressional Budget Office 2018a).

With their reliance on general tax dollars and federal deficit spending, Medicare and the other major health care programs have a substantial effect on the federal debt. Debt equaled 35 percent of GDP at the end of 2007, when the economy entered the last recession (Figure 1-14, p. 24). In part because of the recession, the debt soared, reaching 78 percent of GDP in 2018—a higher share than at any point in U.S. history, except briefly around World War II.

Under baseline assumptions, which reflect current law, CBO projects the debt will reach 90 percent of GDP in 2024 and 152 percent of GDP in about 30 years (or by 2048). However, the CBO baseline assumes that per beneficiary spending for Medicare and Medicaid will increase more slowly in the future than it has during the past several decades. On the one hand, if per beneficiary spending growth were 1 percentage point higher than that of the baseline, the federal debt would be 206 percent of GDP by 2048. On the other hand, if per beneficiary spending growth were 1 percentage point lower, the federal debt would be 110 percent of GDP by 2048.

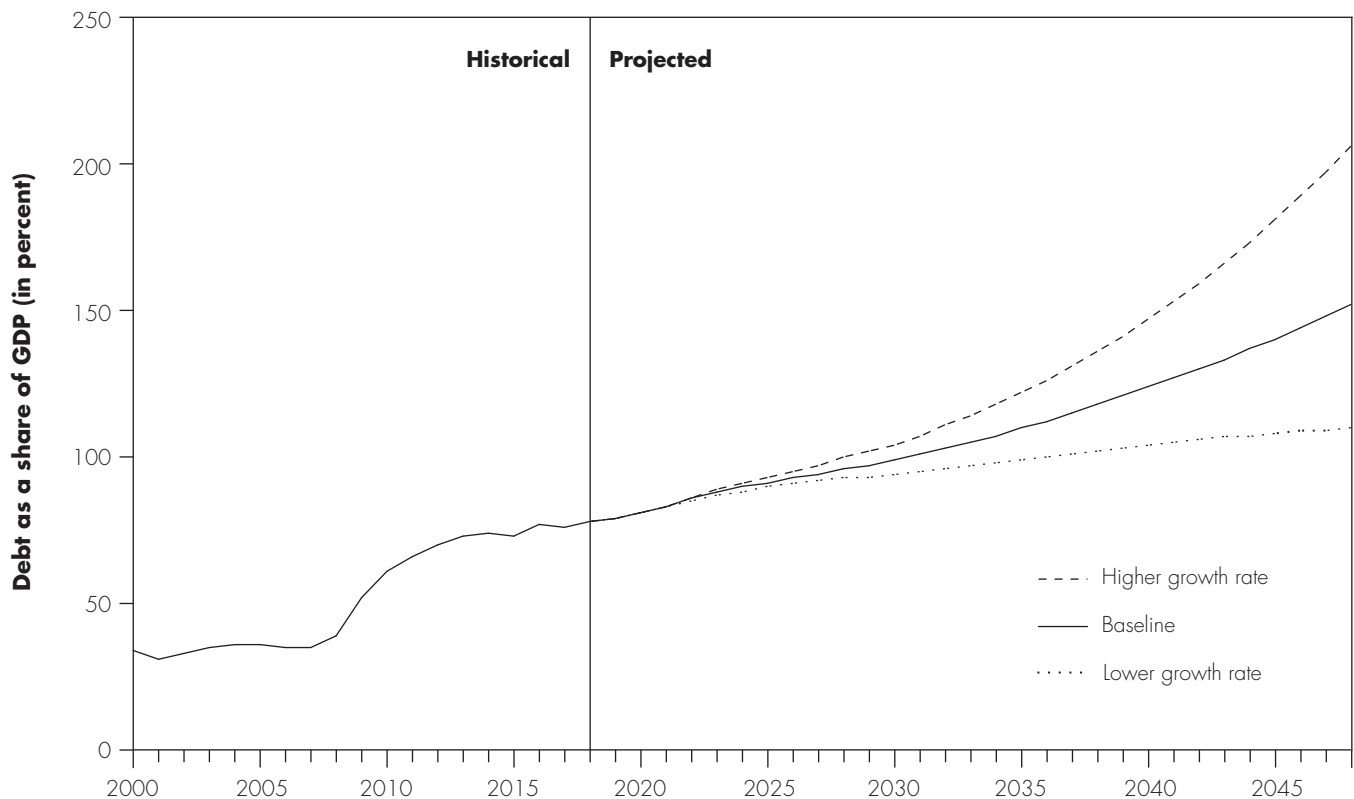
Health care spending consumes growing shares of state and family budgets

Part of the Commission's mandate is to view Medicare in the context of the broader health care system. This section examines the effect of health care spending on state budgets and the budgets of individuals and families. States bear a significant share of Medicaid and other health care costs, so rising health care spending also has implications for state budgets. For individuals and families, increases in premiums and cost sharing have negated real income growth in the past decade. Likewise, premiums and cost sharing for Medicare beneficiaries are projected to grow faster than Social Security benefits, which make up a significant share of many beneficiaries' income.

Health care spending and state budgets

States and the federal government jointly finance Medicaid, a program that pays for health care services provided to people with low incomes. In fiscal year 2013, before the coverage expansions made by PPACA, monthly enrollment in Medicaid averaged almost 60 million people, and total spending was \$455.6 billion, with the states paying 42 percent on average and the federal government paying the remainder (Centers for Medicare & Medicaid Services 2016). Medicaid spending accounted for an estimated 19.3 percent of state expenditures in that year (Centers for Medicare & Medicaid Services 2014).

PPACA gave states the option to expand Medicaid coverage—beginning in 2014—to non-elderly individuals with total family income of less than 138 percent of the federal poverty threshold. States received full federal financing to cover this expansion population in 2014, phasing down to 90 percent federal financing by 2020.

**FIGURE
1-14****Health care spending growth impacts future debt levels**

Note: GDP (gross domestic product). The higher growth rate of per beneficiary spending on Medicare and Medicaid is 0.75 percentage point per year higher than under the baseline assumptions; the lower growth rate is 0.75 percentage point per year lower than under the baseline assumptions.

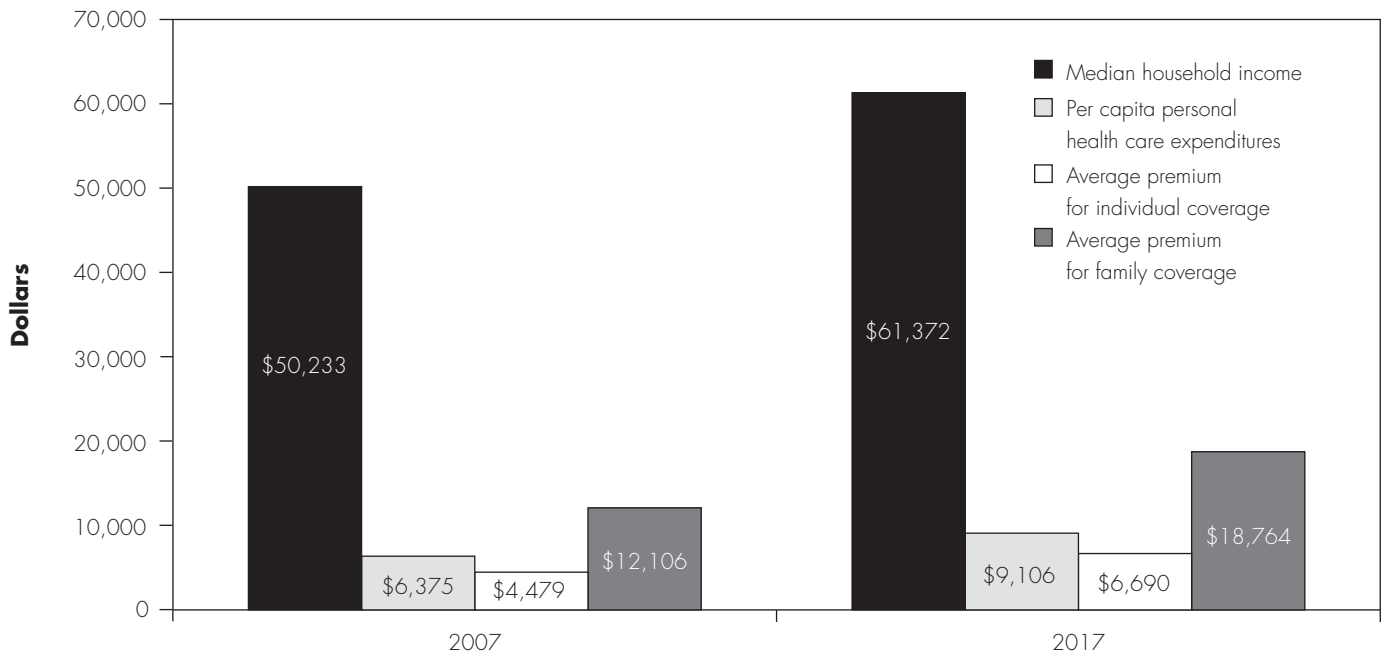
Source: *The 2018 Long-Term Budget Outlook* (published June 2018) from the Congressional Budget Office.

CMS actuaries estimate that, in fiscal year 2015, monthly enrollment in Medicaid increased to cover about 70 million people, and total spending increased to reach \$552.3 billion (Centers for Medicare & Medicaid Services 2016). Because the federal government paid for 100 percent of the costs of newly eligible enrollees, the states' share of all Medicaid expenditures in 2015 decreased to 37 percent. Government actuaries project that the states' share will remain lower than 40 percent over the next 10 years as more states expand coverage (the states' share is projected to range between 37 percent and 39 percent from 2016 to 2025).

PPACA also increased the payment amount primary care providers received for seeing Medicaid patients in 2013 and 2014 so that it equaled Medicare's payment. This

policy represented a significant increase in payments to providers since Medicaid primary care FFS payment rates averaged 59 percent of Medicare fee levels in 2012. The federal government incurred 100 percent of the cost of the payment increase. Federal spending is expected to reach about \$12 billion. (The actual amount is not yet known because states have up to two years to submit claims for federal reimbursement.) Even though the federal subsidies expired at the end of 2014, 16 states and the District of Columbia are continuing to pay enhanced rates (Tollen 2015).

A provision also established under PPACA authority allows state demonstrations for beneficiaries dually eligible for Medicare and Medicaid. Under a financial alignment initiative, CMS has approved 14 demonstrations

**FIGURE
1-15****Growth in health care spending and premiums outpaced growth in household income, 2007–2017**

Note: Household income, health expenditures, and premiums are all measured in nominal dollars. Average premiums for individual and family coverage are for employer-sponsored health insurance and include contributions from workers and employers.

Source: MedPAC analysis of Census Bureau, Current Population Survey, Annual Social and Economic Supplements 2018; National Health Expenditure Accounts from CMS 2018; and Kaiser Family Foundation and Health Research & Educational Trust 2018 survey of employer health benefits.

in 13 states, and 12 demonstrations are still in operation. Most demonstrations are scheduled to last for five to seven years, but some could be extended to last longer. About 440,000 dual eligibles are currently enrolled in what is one of the largest demonstration projects that CMS has ever conducted related to dual-eligible beneficiaries. Most demonstrations (11 of 14) are testing a “capitated” model, which use health plans known as Medicare-Medicaid Plans to provide all Medicare benefits and all or most Medicaid benefits to dual-eligible individuals (Medicare Payment Advisory Commission 2018).

Health care spending and individual and family budgets

For individuals and families, growth in health care spending has meant higher health insurance premiums and a larger proportion of tax revenue devoted to health care (Auerbach and Kellermann 2011). Additionally, for

those covered by employer-sponsored health insurance, an increase in premiums results in lower wage growth because, through wage reductions, employers offset their increased costs of providing health insurance to their employees (Baicker and Chandra 2006, Gruber 2000). As health care spending increases, an increasing share of income from individuals and families is transferred to insurers, hospitals, physicians, and other providers of health care services.

In the past decade, per capita health care spending and premiums have grown much more rapidly than median household incomes and thus account for a greater share of income (Figure 1-15). In 2007, per capita personal health care spending was \$6,375, accounting for 13 percent of median household income, which was \$50,233. Insurance premiums for individuals and families were \$4,479 and \$12,106, respectively; family premiums

Health care occupations employment and salaries

Health care occupations represent a large (9 percent) and growing (20 percent growth rate from 2007 to 2017) share of the country's workforce (Table 1-2). According to data from the Bureau of Labor Statistics (BLS), mean salaries for clinicians—health care practitioners who diagnose and treat conditions—are more than twice the average of all other occupations (Boards of Trustees 2018, Bureau of Labor Statistics 2018, Bureau of Labor Statistics 2008). Salaries for health care technicians (e.g., radiologic

technologists and technicians, dental hygienists, and emergency medical technicians and paramedics) are similar to the average for the non-health care workforce. However, health care support occupations' salaries (e.g., home health aides, orderlies, medical assistants, and medical transcriptionists) are less than average salaries. BLS data also indicate that wages for health care professionals may have grown more rapidly (31 percent), in nominal dollars, than for other occupations (27 percent). ■

**TABLE
1-2**

Employment and salary for health care and all other occupation categories, 2017

Occupation categories	Employees (in millions)	Increase from 2007	Share of all occupations	Mean salary	Increase from 2007
All occupations	143	6%	N/A	\$50,620	28%
All but health care total	130	5	91%	\$49,258	27
All but clinicians	137	5	96	\$48,695	27
Health care total	13	20	9	\$64,642	31
Health care practitioners and technical occupations	9	24	6	\$80,760	31
Clinicians	5	26	4	\$100,780	32
Technicians	3	19	2	\$47,310	25
Health care support occupations	4	13	3	\$31,310	24

Note: N/A (not applicable). "Clinicians" includes health care practitioners who diagnose or treat conditions, such as physicians, dentists, physician assistants, registered nurses, and physical therapists. "Technicians" includes health care technical occupations such as radiologic technologists and technicians, dental hygienists, emergency medical technicians and paramedics, and pharmacy technicians. "Health care support occupations" includes occupations such as home health aides, orderlies, medical assistants, and medical transcriptionists. Data from self-employed persons are not collected and are not included in the estimates. Salary increases from 2006 are measured in nominal dollars. The Bureau of Labor Statistics cautions against using Occupational Employment Statistics (OES) data to compare two points in time because the survey methodology is designed to create detailed cross-sectional employment and wage estimates but presents challenges in using OES data as a time series. These challenges include changes in the occupational, industrial, and geographical classification systems; changes in the way data are collected; changes in the survey reference period; and changes in mean wage estimation methodology, as well as permanent features of the methodology. Categories may not sum due to rounding.

Source: MedPAC analysis of Bureau of Labor Statistics May 2017 National Occupational Employment and Wage Estimates United States and Bureau of Labor Statistics May 2007 National Occupational Employment and Wage Estimates United States.

accounted for 24 percent of median household income (Census Bureau 2018, Centers for Medicare & Medicaid Services 2018a, Kaiser Family Foundation and Health Research & Educational Trust 2018).¹¹ By 2017, per capita personal health care spending had grown to \$9,106,

accounting for 15 percent of median household income, which was \$61,372. The premiums for typical individual and family health insurance were \$6,690 and \$18,764, respectively; family premiums accounted for 31 percent of median household income. From 2007 to 2014, middle-

income households' health care spending grew by 25 percent, while their spending fell for categories such as food, housing, clothing, and transportation (Baily and Holmes 2015). While health care is a growing expense for households, it is a source of income for health care providers. A greater share of the nominal-dollar income increase may have gone to health care providers rather than other occupation categories (see text box on health care occupations).

Many Medicare beneficiaries are not exempt from the financial challenges of the program's ever-growing cost-sharing liabilities.¹² In 2018, SMI (Medicare Part B and Part D) premiums and cost sharing likely consumed 24 percent of the average Social Security benefit, up from 7 percent in 1980 (Boards of Trustees 2018). (Those percentages do not include beneficiary spending on premiums for Medicare supplemental insurance.) The Medicare Trustees estimate that those costs will consume 30 percent of the average Social Security benefit by 2035. On average, Social Security benefits account for more than 60 percent of income for seniors. For more than one-fifth of seniors, Social Security benefits account for 100 percent of income (Social Security Administration 2016). However, some seniors also rely on accumulated assets to supplement their income in retirement. Additionally, despite the increasing cost-sharing burden, the availability of SMI Part B and Part D benefits greatly reduces the costs that beneficiaries would otherwise pay for health care services without those benefits since general revenues cover a large share of those costs.

Recent trends in life expectancy, morbidity, and mortality

Several recent studies and news reports have highlighted aspects of decreasing life expectancy and increasing mortality and morbidity among some Americans (see text box on recent mortality and morbidity trends, p. 29). These aspects include—for specific groups—decreases in life expectancy; increasing rates of suicide and deaths from drug poisonings; and troubling health indicators and behaviors, such as increased alcohol consumption, smoking, and obesity. These trends interact with longstanding underlying variations in life expectancy, mortality, and morbidity by sex, income, race and ethnicity, and geographic location.

Life expectancy by sex, race, and Hispanic origin

In general, life expectancy in the United States has been increasing over the past century (although more slowly than in other Organisation for Economic Co-operation and Development (OECD) countries).¹³ These increases in longevity are influenced by a range of factors, including health behavior changes, increased disease prevention efforts, and advances in medical treatments. In 2016, average life expectancy at birth for an individual living in the United States was 78.6 years (Table 1-3, p. 28). However, an individual's life expectancy can vary significantly from this average based on certain characteristics, including race, sex, socioeconomic status, and geographic location. Variations have existed ever since official data have been collected. One example is that, in 2016, women on average had a longer life expectancy than men (81.1 years vs. 76.1 years, respectively) (Table 1-3). Though this longevity gap has lessened in recent years (data not shown), researchers speculate that these differences are caused by a combination of genetics, reductions in infections, and behavioral and lifestyle factors (Beltran-Sanchez et al. 2015).

Race and ethnicity are also associated with variations in life expectancy. The Hispanic population in the United States in 2016 had a higher life expectancy at birth (81.8 years) than the non-Hispanic White and African American populations, at 78.5 and 74.8 years, respectively (Table 1-3, p. 28). Though these differences have shifted somewhat over time, the general trend has persisted, that the Hispanic population has the longest life expectancy and non-Hispanic African Americans have the shortest (Arias 2016).

Life expectancy by geographic areas

Life expectancy in the U.S. varies based on an array of geographic characteristics, including urban and rural location and among states. A 2017 study by Zolot found a greater than 20-year difference in life expectancy by county and a trend that these geographic disparities have been increasing over the past few decades (Zolot 2017). A 2014 study by Singh and Siahpush found that life expectancy was inversely related to levels of rurality and that rural African Americans and Whites had lower life expectancies than their urban counterparts (Singh and Siahpush 2014).¹⁴ From 2005 through 2009, those in large metropolitan areas had a life expectancy of 79.1 years compared with 76.9 years in small towns and 76.7 years in rural areas. Compared with their urban peers, people

**TABLE
1–3****Life expectancy at birth by race/ethnicity and sex, 2007 to 2016**

	2007	2015	2016	Change 2007–2016	Change 2015–2016
All races and ethnicities, both sexes	78.1	78.7	78.6	0.5	–0.1
White, not Hispanic, both sexes	78.4	78.7	78.5	0.1	–0.2
African American, not Hispanic, both sexes	73.5	75.1	74.8	1.3	–0.3
Hispanic, both sexes	80.7	81.9	81.8	1.1	–0.1
All races and ethnicities, female	80.6	81.1	81.1	0.5	0
White, not Hispanic, female	80.8	81.0	81.0	0.2	0
African American, not Hispanic, female	76.7	78.1	77.9	1.2	–0.2
Hispanic, female	83.2	84.3	84.2	1.0	–0.1
All races and ethnicities, male	75.5	76.3	76.1	0.6	–0.2
White, not Hispanic, male	75.9	76.3	76.1	0.2	–0.2
African American, not Hispanic, male	69.9	71.9	71.5	1.6	–0.4
Hispanic, male	77.8	79.3	79.1	1.3	–0.2

Source: National Center for Health Statistics 2018.

in rural areas had higher rates of both smoking and lung cancer, along with obesity. Additionally, rural residents on average had a lower median family income and higher poverty rate, and fewer had college degrees, which may contribute to the difference in life expectancy. Another study by Chetty and colleagues exploring the association between life expectancy and income found that low-income individuals' life expectancy varied substantially based on where they lived (Chetty et al. 2016). The study found that individuals in the lowest income quartile often lived longer and had more healthful behaviors if they resided in urban areas with highly educated populations, high incomes, and high levels of government expenditures. Some potential explanations for these findings are that these areas may have public policies that improve health (e.g., smoking bans) or they may have greater funding for public services. However, the Commission's research has found little difference between rural and urban beneficiaries' experience with access to care and amount of service use. With respect to quality of care, quality is similar for most types of providers in rural and urban areas; however, rural hospitals tend to have below-average rankings on mortality and some process measures (Medicare Payment Advisory Commission 2012).

A recent study by Montez and colleagues examined variation in women's mortality rates across states (Montez

et al. 2016).¹⁵ The study found that a state's economic and social environment (e.g., welfare policies, tobacco tax rate, level of economic inequality) had a significant effect on women's mortality rate. The researchers found that many of the states with the best economic and social indicators had some of the lowest mortality rates among women. The same correlation was not seen among males. These findings imply that geographic inequities in women's mortality rates may not be fully explained just by women's personal characteristics; rather, the influence of socioeconomic and political contexts must also be considered.

Numerous researchers and media stories have highlighted the growing opioid abuse and mortality trend (Case and Deaton 2017, Case and Deaton 2015, Rudd et al. 2016, Zolot 2017). Case and Deaton note, "In 2000, the epidemic was centered in the southwest. By the mid-2000s it had spread to Appalachia, Florida, and the west coast. Today, it's country-wide" (Case and Deaton 2017). Figure 1-16 (p. 30) shows the age-adjusted drug overdose-related death rate per 100,000 population in 2016. In 2016, the five states with the highest rates of death due to drug overdose were West Virginia (52.0 per 100,000), Ohio (39.1 per 100,000), New Hampshire (39.0 per 100,000), Pennsylvania (37.9 per 100,000), and Kentucky (33.5 per 100,000) (data not shown).

Recent mortality and morbidity trends

Several recent studies and news reports have highlighted aspects of increasing mortality and morbidity among some Americans (Arias 2016, Case and Deaton 2017, Case and Deaton 2015, Montez et al. 2016, Zolot 2017). While researchers have applied diverse methods and reported various aspects of the trend, two key findings are (1) increases in mortality in groups of Whites, especially those with only a high school diploma or less, and (2) lower and decreasing life expectancy for residents of certain geographic areas.

Over the past century, the U.S. has experienced generally consistent declines in the mortality rate. However, there has recently been an increase in mortality among the middle-aged (45 to 54 years old) non-Hispanic White population (Case and Deaton 2015, Kochanek et al. 2015). The analysis by Case and Deaton found no similar mortality rate increase in other industrialized countries or in the non-Hispanic African American or Hispanic population of this age group (Case and Deaton 2015). Case and Deaton note that three causes of death have dramatically increased among this group in the past decade: suicides, intentional and unintentional poisonings, and chronic liver disease. Additionally, increases in midlife mortality in this group are paralleled by increases in self-reported midlife morbidity and troubling health indicators and behaviors such as increased alcohol consumption, smoking, and obesity. Case and Deaton's findings indicate that the increase in reports of poor health by this group has been matched by increasing reports of physical pain and psychological distress.

As with any population-level trend, the causes of increased midlife morbidity and mortality among non-Hispanic Whites are difficult to identify. A recent study found that varying inequalities in women's mortality across states may be partially explained by macro-level socioeconomic and political factors—for example, policies that shape access to health care, use of tobacco, availability of affordable housing, children's health care, and financial safety nets (Montez et al. 2016). Some researchers point to the availability of opioid drugs as a possible source of rising mortality rates. Increased reports of pain combined with the increased availability of opioid prescriptions for pain that began in the late 1990s have been widely noted, as well as the associated mortality (Rudd et al. 2016). Studies have also found that recent restrictions of opioid prescriptions may lead to unintended negative consequences such as increased use of heroin (Compton et al. 2016). There is concern that those affected by opioid and substance use in midlife include current Medicare beneficiaries under 65 and others who will age into Medicare in worse health than current beneficiaries. Researchers have found that patients with a diagnosed opioid dependency are high users of health care services, including office visits, lab tests, and related treatments (FAIR Health 2016). However, this use may be related to the underlying conditions for which opioids were used as much as the consequences of opioid abuse or related effects. Addiction is hard to treat, chronic pain is challenging to control, and these conditions appear to be potential problems among the next generation of Medicare beneficiaries. ■

Significant increases in drug overdose death rates from 2015 to 2016 were seen primarily in the Northeast, Midwest, and South census regions. States with statistically significant increases in drug overdose death rates from 2015 to 2016 included Connecticut, Delaware, Florida, Illinois, Indiana, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, North Carolina, Ohio, Oklahoma,

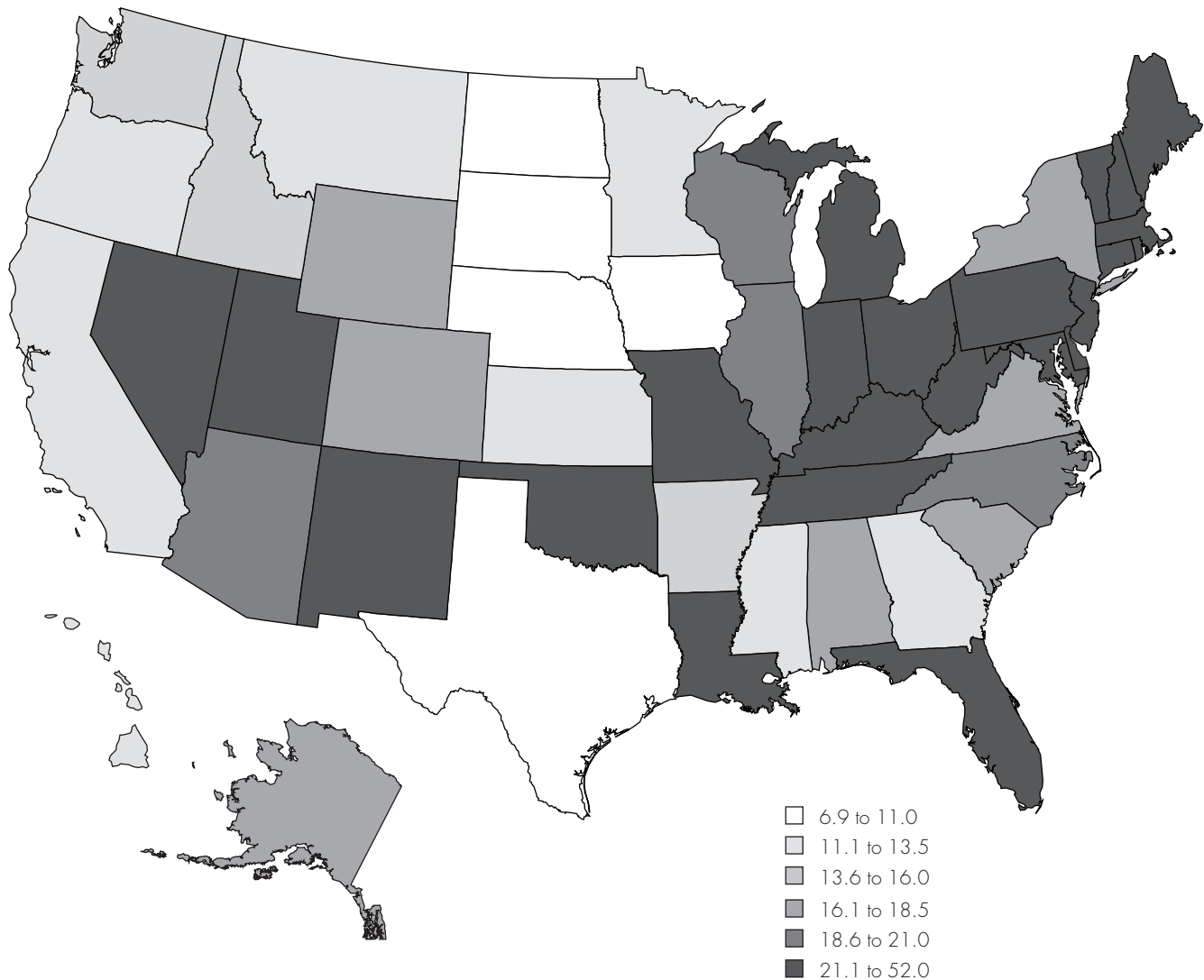
Pennsylvania, South Carolina, Tennessee, Texas, Vermont, Virginia, West Virginia, and Wisconsin.

Life expectancy at age 65

Recent decreases in life expectancy and increases in mortality are mostly isolated to the under-65 population. Between 2007 and 2016, life expectancy at 65 (i.e., remaining years of life) increased for all groups (Table 1-4, p. 31).

**FIGURE
1-16**

Age-adjusted opioid-related death rate per 100,000 population, 2016



Source: MedPAC analysis of data from the Centers for Disease Control and Prevention, National Center for Health Statistics, Underlying Cause of Death 1999–2016 on CDC WONDER Online Database, released December 2017.

Leading causes of death

Over the past few decades, there has been little change in the leading causes of death in the U.S., both for all Americans and those 65 and older (Table 1-5, opposite page, and Table 1-6, p. 32). Heart disease and cancer have remained the first and second leading causes of death, respectively, for both age groups for more than 75 years (Hoyert 2012, National Center for Health Statistics 2018). In each year between 1935 and 2016, three causes—heart disease, cancer, and stroke—remained among the five

leading causes. Suicide was the 10th leading cause of death among all Americans in both 1980 and 2016.

Some of the leading causes of death overlap with the most prevalent and most expensive chronic conditions among Medicare FFS beneficiaries (Table 1-7, p. 33). In Table 1-7, the Medicare total per capita spending amounts represent all Medicare spending for FFS beneficiaries with the specified condition (i.e., the spending cannot be attributed strictly to the specified condition because

**TABLE
1-4****Life expectancy at age 65 by race/ethnicity and sex, 2007 to 2016**

	2007	2015	2016	Change 2007-2016	Change 2015-2016
All races and ethnicities, both sexes	18.8	19.3	19.4	0.6	0.1
White, not Hispanic, both sexes	18.8	19.3	19.3	0.5	0
African American, not Hispanic, both sexes	17.2	18.1	18.0	0.8	-0.1
Hispanic, both sexes	20.5	21.4	21.4	0.9	0
All races and ethnicities, female	20.0	20.5	20.6	0.6	0.1
White, not Hispanic, female	20.0	20.4	20.5	0.5	0.1
African American, not Hispanic, female	18.7	19.5	19.5	0.8	0
Hispanic, female	21.7	22.6	22.7	1.0	0.1
All races and ethnicities, male	17.4	18.0	18.0	0.6	0
White, not Hispanic, male	17.4	18.0	18.0	0.6	0
African American, not Hispanic, male	15.3	16.2	16.2	0.9	0
Hispanic, male	18.7	19.7	19.7	1.0	0

Source: National Center for Health Statistics 2018.

beneficiaries may have other health conditions that contribute to their total Medicare use and spending amounts).

It is unclear how the prevalence of these and other acute and chronic conditions contributes to Medicare spending

trends in part because treatments for conditions are influenced by changes in technology and definitions of what constitutes disease shift over time. The Commission explored this question in 2007 and found upward pressure on Medicare costs because of a greater proportion of beneficiaries being treated for multiple chronic conditions

**TABLE
1-5****Leading causes of death, 1980 and 2016****Table 1-5a. Leading causes of death, 1980**

Cause of death	Share of deaths
1. Heart disease	38.2%
2. Cancer	20.9
3. Stroke	8.6
4. Unintentional injuries	5.3
5. Chronic obstructive pulmonary diseases	2.8
6. Pneumonia and influenza	2.7
7. Diabetes mellitus	1.8
8. Chronic liver disease and cirrhosis	1.5
9. Atherosclerosis	1.5
10. Suicide	1.4

Table 1-5b. Leading causes of death, 2016

Cause of death	Share of deaths
1. Heart disease	23.1%
2. Cancer	21.8
3. Unintentional injuries	5.9
4. Chronic lower respiratory disease	5.6
5. Stroke	5.2
6. Alzheimer's disease	4.2
7. Diabetes mellitus	2.9
8. Pneumonia and influenza	1.9
9. Nephritis, nephrotic syndrome, and nephrosis	1.8
10. Suicide	1.6

Note: Starting with 2011 data, the rules for selecting renal failure as the underlying cause of death were changed, affecting the number of deaths in the "nephritis, nephrotic syndrome, and nephrosis" and "diabetes mellitus" categories. These changes directly affect the cases of death with mention of renal failure and other associated conditions such as diabetes mellitus with renal complications. The result is a decrease in the number of deaths attributed to nephritis, nephrotic syndrome, and nephrosis and an increase in the number of deaths attributed to diabetes mellitus. Therefore, trend data for these two causes of death should be interpreted with caution.

Source: 2018 data on mortality from the National Center for Health Statistics.

**TABLE
1–6**

Leading causes of death at age 65 and older, 1980 and 2016

Table 1-6a. Leading causes of death at age 65 and older, 1980

Cause of death	Share of deaths
1. Heart disease	44.4%
2. Cancer	19.3
3. Stroke	10.9
4. Pneumonia and influenza	3.4
5. Chronic obstructive pulmonary diseases	3.2
6. Atherosclerosis	2.1
7. Diabetes mellitus	1.9
8. Unintentional injuries	1.9
9. Nephritis, nephrotic syndrome, and nephrosis	1.0
10. Chronic liver disease and cirrhosis	0.7

Table 1-6b. Leading causes of death at age 65 and older, 2016

Cause of death	Share of deaths
1. Heart disease	25.3%
2. Cancer	21.1
3. Chronic lower respiratory diseases	6.5
4. Stroke	6.1
5. Alzheimer's disease	5.7
6. Diabetes mellitus	2.8
7. Unintentional injuries	2.7
8. Pneumonia and influenza	2.1
9. Nephritis, nephrotic syndrome and nephrosis	2.1
10. Septicemia	1.5

Note: Starting with 2011 data, the rules for selecting renal failure as the underlying cause of death were changed, affecting the number of deaths in the “nephritis, nephrotic syndrome, and nephrosis” and “diabetes mellitus” categories. These changes directly affect the number of deaths attributed to renal failure and other associated conditions such as diabetes mellitus with renal complications. The result is a decrease in the number of deaths attributed to nephritis, nephrotic syndrome, and nephrosis and an increase in the number of deaths attributed to diabetes mellitus. Therefore, trend data for these two causes of death should be interpreted with caution.

Source: 2018 data on mortality from the National Center for Health Statistics.

(Medicare Payment Advisory Commission 2007). This increase reflected growth in the prevalence of obese beneficiaries, advances in technology for diagnosing and treating conditions, and changes in disease definitions. More recently, CBO found that, while ample evidence exists of increased health care spending associated with obesity, evidence about the effects of weight loss on the health and health care spending of obese people is inconclusive at best (Congressional Budget Office 2015).

The relationship between Medicare spending and quality

The Commission contends that Medicare payments should not be made without consideration of the quality of care delivered to beneficiaries (Medicare Payment Advisory Commission 2018). The Commission has supported the implementation of quality incentive programs across the Medicare program—for example, the Hospital Readmissions Reduction Program (Medicare Payment Advisory Commission 2008). The Commission asserts that Medicare quality incentive programs should use a

small set of outcomes, patient experience, and resource use measures that are not unduly burdensome for providers to report. Further, these population-based measures can be used to assess and compare the quality of care across different populations, such as MA beneficiaries, beneficiaries under accountable care organizations, or FFS beneficiaries. The measures can also be applied to populations in defined market areas or populations served by distinct provider types.

Currently, Medicare does not consistently measure quality across MA plans, FFS populations, and providers, so we cannot report trends about the entire Medicare program's quality of care. Where feasible to measure, we report whether the quality of care delivered in certain provider settings has improved or has been maintained over the past few years. For example, in the FFS population, hospital-level readmission rates, readmission rates within 30 days after discharge from a skilled nursing facility, and dialysis facility readmission rates have improved over the past few years.

As Medicare per beneficiary spending has increased over the life of the program, has the quality of health care received

**TABLE
1-7****Selected chronic conditions by prevalence and total per capita spending among Medicare FFS beneficiaries, 2015**

Chronic condition	Prevalence among Medicare FFS beneficiaries	Total per capita spending for beneficiaries with the specified condition
Five chronic conditions most prevalent among Medicare FFS beneficiaries:		
Hypertension	58.3%	\$13,718.10
Hyperlipidemia	47.3	13,053.20
Rheumatoid arthritis/osteoarthritis	32.1	15,231.10
Diabetes mellitus	28.2	15,067.40
Ischemic heart disease	28.2	18,214.30
Five chronic conditions with highest total per capita spending among Medicare FFS beneficiaries:		
Stroke	3.9	29,852.60
Heart failure	14.5	27,078.20
COPD	12.0	24,332.90
Schizophrenia/other psychotic disorders	N/A	24,270.90
Chronic kidney disease	19.3	24,027.90

Note: FFS (fee-for-service), COPD (chronic obstructive pulmonary disease), N/A (not available). Data include all Medicare beneficiaries who were eligible for or enrolled in Medicare on or after January 1, 2015. Period prevalence is calculated for these rates: beneficiaries with full or nearly full FFS coverage (i.e., 11 or 12 months of Medicare Part A and Part B (or coverage until time of death) and 1 month or less of HMO coverage) during the year who received treatment for the condition within the condition-specified look-back period (chronic conditions have a 1- to 3-year look-back period). Beneficiaries may be counted in more than one chronic condition category. The Medicare utilization and spending information presented above represents total Medicare FFS spending for beneficiaries with the condition. The information should not be used to attribute utilization or payments strictly to the specific condition selected because beneficiaries with any of the specific conditions presented may have other health conditions that contribute to their Medicare utilization and spending amounts.

Source: 2017 data from the Chronic Conditions Warehouse from the Centers for Medicare & Medicaid Services.

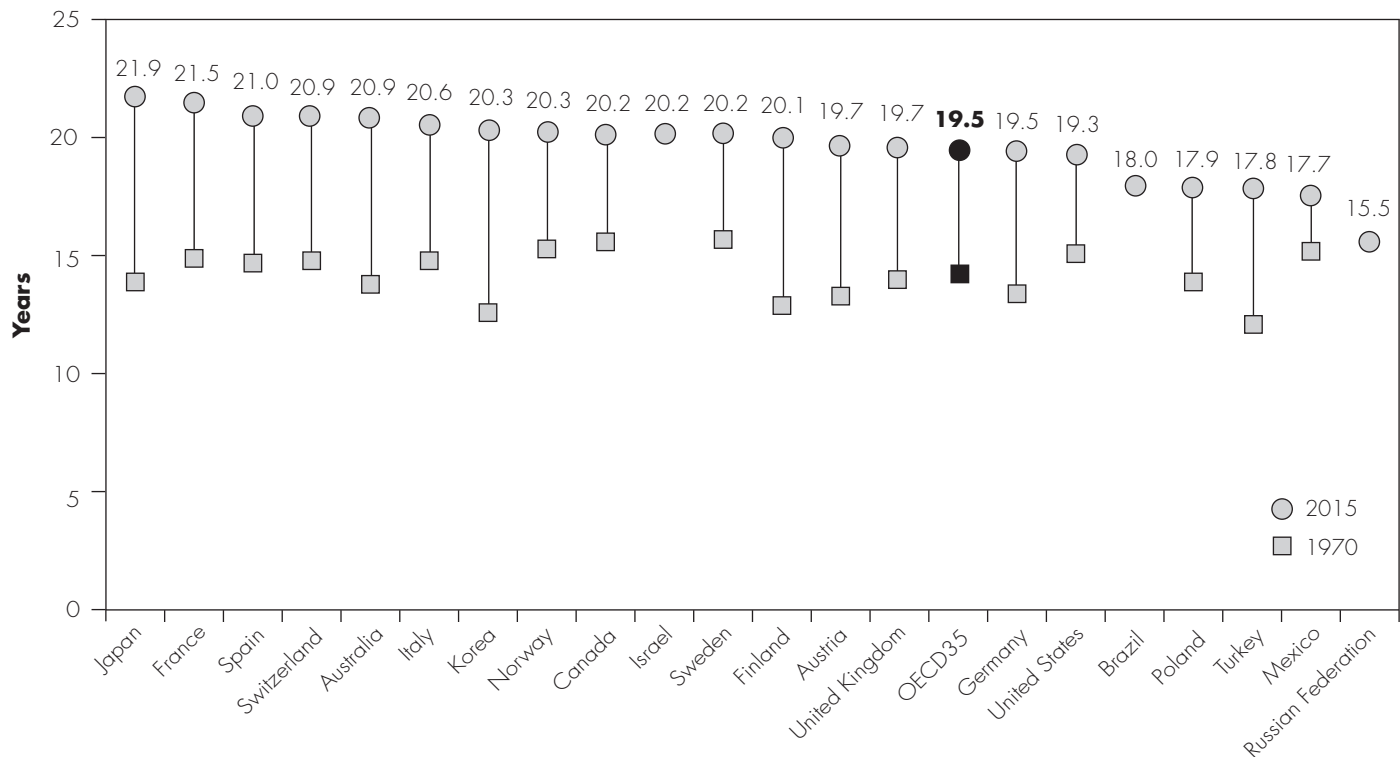
by Medicare beneficiaries improved? From the perspective of beneficiary health and longevity, indicators show improvements, primarily for beneficiaries ages 65 and older; the limited data available for younger Medicare beneficiaries include one indication of potentially poorer quality:

- Life expectancy at age 65 has steadily increased since the introduction of Medicare. Individuals who reached age 65 in 2015 had a remaining life expectancy of 19.3 years, compared with 15.1 years for this age group in 1970. However, these beneficiaries' gains in longevity are outpaced by their peers in other OECD countries. From 1970 to 2015, U.S. life expectancy at age 65 improved by 4.2 years (Figure 1-17, p. 34), compared with an average gain of 5.3 years for the 35 OECD countries.¹⁶ (Comparable information for the Medicare population under age 65 is not readily available.)

- Between 1991 and 2016, the share of people ages 65 to 74 reporting fair or poor health status declined from 26 percent to 19 percent (Figure 1-18, p. 35); the share of people ages 75 and older reporting fair or poor health status declined from 34 percent to 26 percent; between 2010 and 2016, the share of adults who report some difficulty in functional domains reporting fair or poor health status declined from 17 percent (the first year the measure was reported) to 16; but, for that same period, the share of adults who report a lot of difficulty in functional domains or cannot perform them at all who report fair or poor health status increased from 47 percent in to 52 percent.
- While the share of people ages 65 and older with chronic conditions, such as diabetes, hypertension, and high cholesterol, has increased over time, the share of people who have those conditions under control has also increased (Federal Interagency Forum

**FIGURE
1-17**

Life expectancy at age 65 is lower and increased less in the United States than in other OECD countries, 1970–2015



Note: OECD (Organisation for Economic Co-operation and Development). "OECD35" refers to the average of all 35 OECD countries. Selected OECD countries are shown. Early life expectancy figures for Italy, Canada, and Finland are as of 1971 rather than 1970. For Canada, the recent life expectancy figure is as of 2012; for Brazil, 2013. Data are not available for 1970 for Brazil, Israel, and the Russian Federation.

Source: 2017 data on life expectancy at age 65 from the Organisation for Economic Co-operation and Development.

on Aging-Related Statistics 2016, National Center for Health Statistics 2015). (Comparable information for the Medicare population under age 65 is not readily available.)

However, many factors other than health care also impact individual and population health, including poverty, income levels, and health-related behaviors such as smoking and alcohol consumption. For example, between 1970 and 2017, the poverty rate among people ages 65 years and older fell, with the support of the Social Security program, from almost 25 percent to about 9 percent, potentially having a substantial effect on individual and population health for that age group (Figure 1-19, p. 36). Between 1997 and 2017, the poverty rate for younger adults with

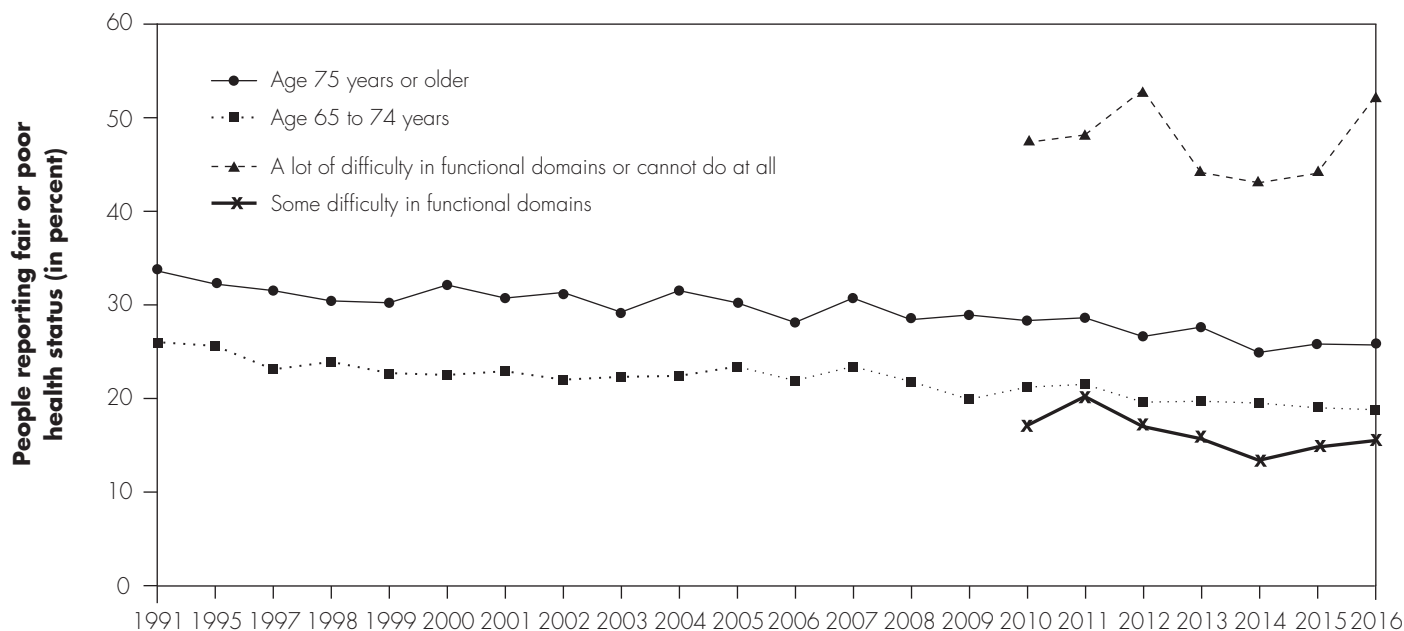
disabilities has shifted over time, decreasing overall from 36 percent to 25 percent.

Baby boomers will make up the next generation of Medicare beneficiaries

As the baby-boom generation ages, enrollment in the Medicare program will surge. In 15 years, Medicare is projected to have more than 80 million beneficiaries—up from 57 million beneficiaries today—almost 90 percent of whom will be of the baby-boom generation.¹⁷ These individuals will define the upcoming Medicare population in terms of age distribution, health status, health insurance experiences before Medicare enrollment, and financial security.

**FIGURE
1-18**

The share of Medicare eligibles reporting fair or poor health status changed over time, available years 1991-2016



Note: "A lot of difficulty in functional domains or cannot do at all" and "some difficulty in functional domains" include people 18 and older who report one or more of the following six functional limitations: seeing (even if wearing glasses), hearing (even if wearing hearing aids), mobility (walking or climbing stairs), communication (understanding or being understood by others), cognition (remembering or concentrating), and self-care (such as washing all over or dressing). These measures of functional limitations among adults 18 years and older did not begin being reported until 2010.

Source: 2018 data on health status from the National Center for Health Statistics.

The Medicare population becomes younger as it expands and then grows older as the baby-boom generation ages

Enrollment in the Medicare program is projected to grow rapidly as members of the baby-boom generation age into the program (see Figure 1-10a, p. 19). These individuals began aging into Medicare in 2011 at an average rate of 10,000 people per day. Medicare enrollment is projected to grow by nearly 50 percent by 2030, and this growth will be made up almost entirely of baby boomers (Figure 1-20, p. 37) (Census Bureau 2014).

The Medicare population over the next 15 years will be relatively younger, as members of the baby-boom generation join and increase the number of beneficiaries in younger age categories (Figure 1-21, p. 38).

The share of the Medicare population ages 85 years or older is projected to decline slightly through 2025 and then

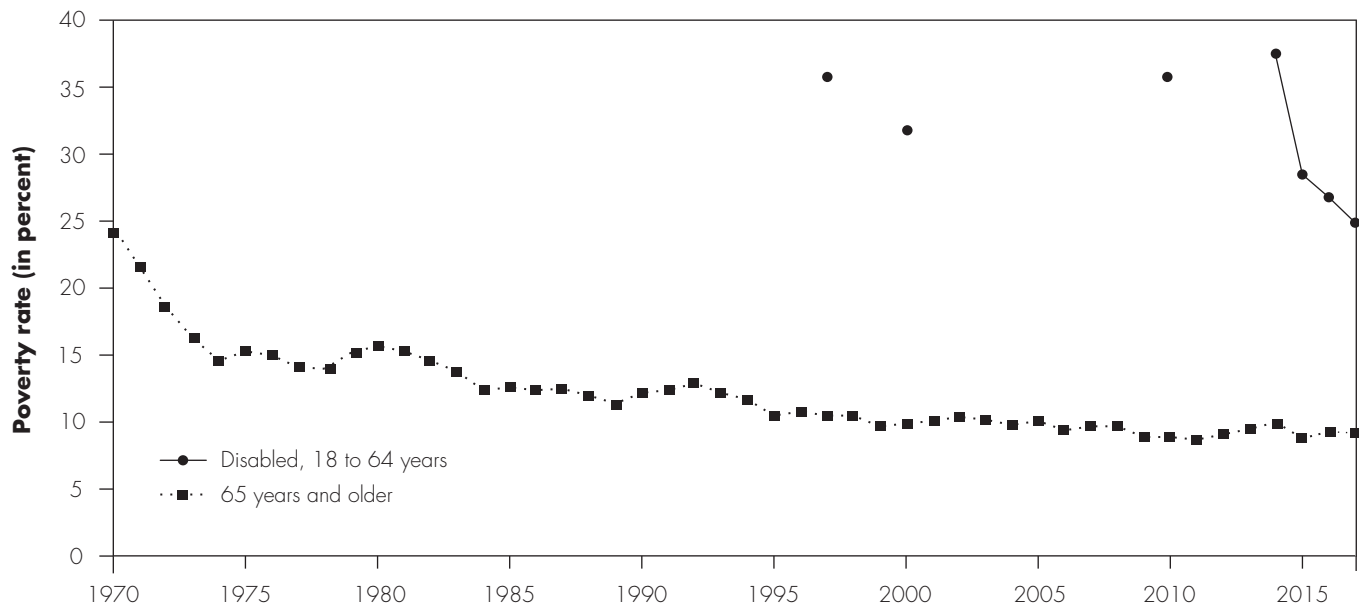
grow as baby boomers continue to age (Boards of Trustees 2014, Census Bureau 2014). In 2013, per beneficiary spending for those ages 85 and older was about twice that of those ages 65 to 74. So, the changing age structure of the Medicare population will exert somewhat less pressure on spending in the very near term, at least on a per capita basis, and then pressure will increase again over the longer term.¹⁸

Inefficient spending suggests Medicare could spend less without compromising care, but not without challenges

With few exceptions throughout modern history, health care spending in the U.S. has grown robustly, outpacing the growth in the economy. Even if Medicare's recent low growth in per beneficiary spending is sustained,

**FIGURE
1–19**

The poverty rate has fallen over time among people ages 65 years and older and adults with disabilities, available years 1970–2017



Note: Data on the poverty rate among people with disabilities have been reported for only seven years: 1997, 2000, 2010, 2014, 2015, 2016, and 2017.

Source: Data on income and poverty from the Census Bureau.

enrollment growth from the aging of the baby boomers will contribute to growth in total spending regardless. However, the Commission does not believe that ever-increasing health care spending is inevitable. There is strong evidence that a sizeable share of current health care spending—both overall and by Medicare—is inefficient or unnecessary, providing an opportunity for policymakers to reduce spending, extend the life of the program, and reduce pressure on the federal budget.

Geographic variation within and outside the U.S. indicates that some share of spending is inefficient

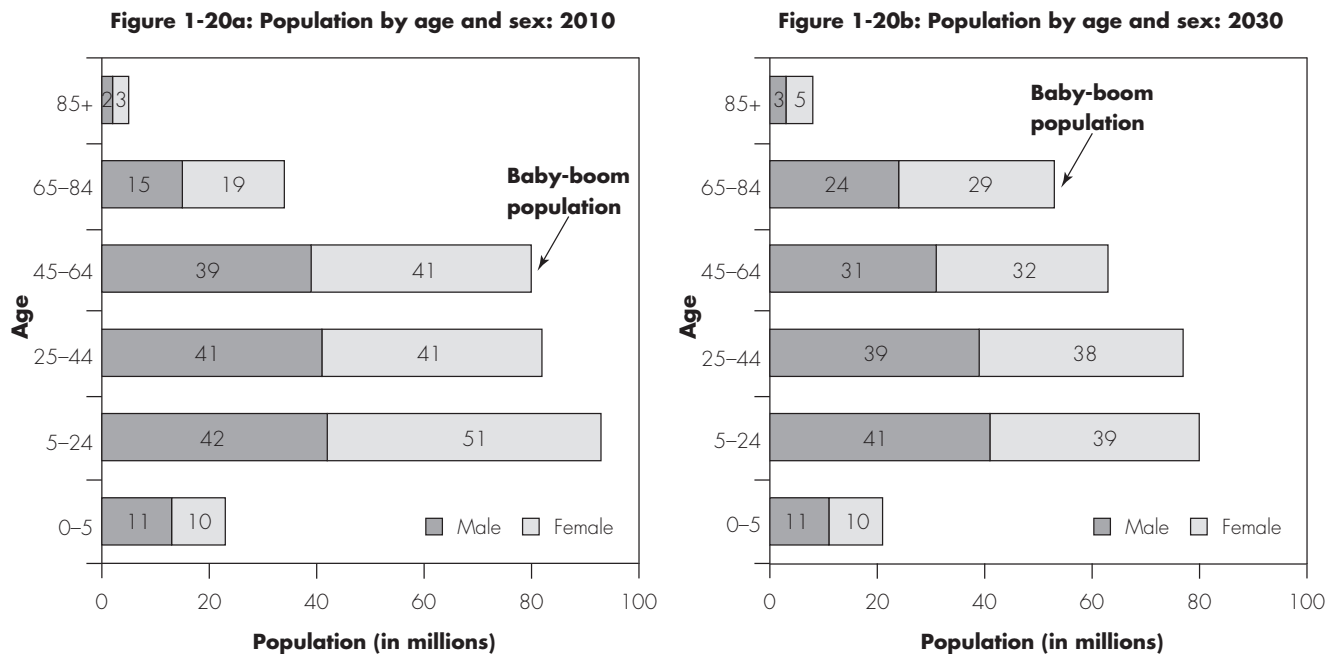
Research on Medicare spending shows that areas with higher spending or more intensive use of services do not necessarily have higher quality of care or improved patient outcomes (Fisher et al. 2003a, Fisher et al. 2003b). Measures of service use, adjusted for health status and standardized prices, also show considerable variation (Medicare Payment Advisory Commission 2011b).

Services that have been widely recognized as low value continue to be performed regularly (Schwartz et al. 2014).

The U.S. spends more on health care than any other country in the world (both on a per capita basis and as a share of GDP), but studies consistently show it ranks poorly on indicators of efficiency, equity, and outcomes. According to a 2014 study by the Commonwealth Fund, the United States ranks last of 11 nations on 2 indicators of healthy lives—mortality amenable to medical care and healthy life expectancy at age 60 (Davis et al. 2014).

Medicare’s challenges to increasing efficiency

The Medicare program is a complex and fragmented system, consisting of multiple paths to entitlement; multiple types of coverage (Part A, Part B, Part C (Medicare Advantage), and Part D); multiple payment systems; and different rules for each setting. The Medicare program must set prices for thousands of discrete services

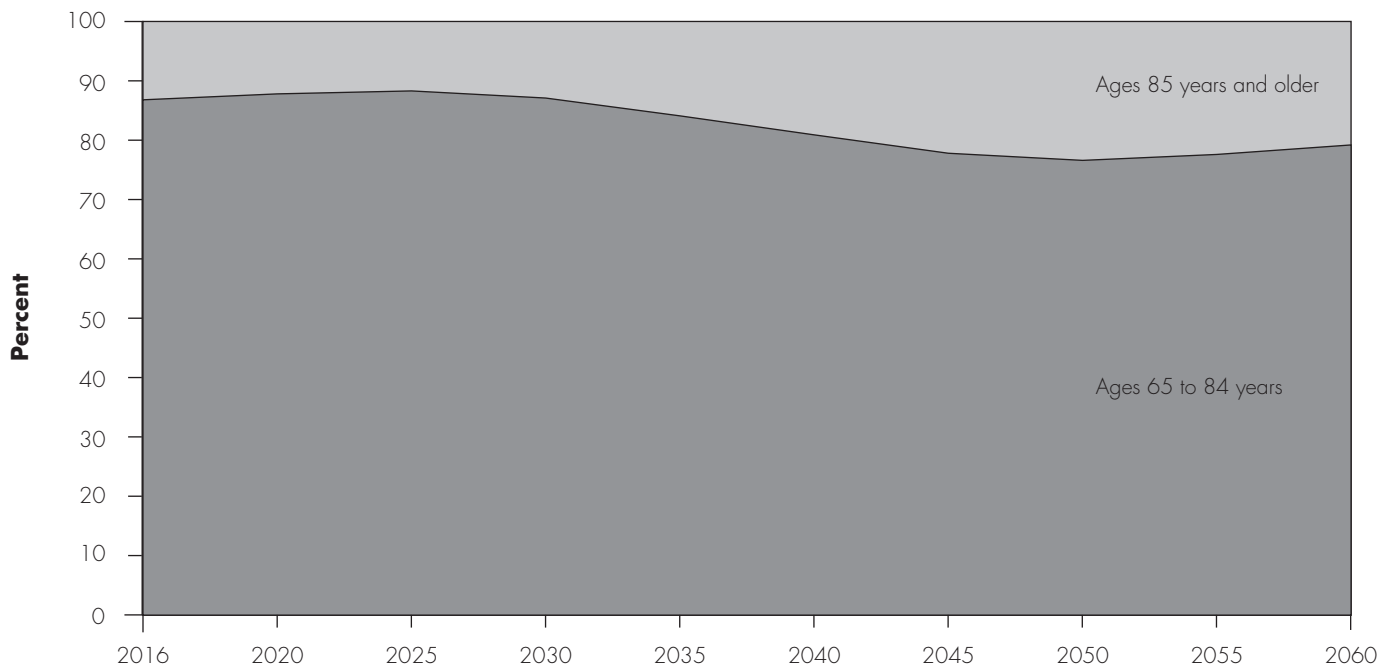
**FIGURE
1-20****By 2030, the entire baby-boom generation will be eligible for Medicare**

Source: Census Bureau, 2010 Census; 2017 National Population Projections, middle series.

at different levels of aggregation (e.g., inpatient hospital payments are paid based on the stay, while physician payments are based on the service) and in different labor markets across the country. The Medicare program statute and rulemaking include a substantial number of exceptions, adjustments, and modifications to its general policies. Several of Medicare's structural features (and some shared across the health care system) complicate efforts to achieve spending efficiencies:

- **Medicare being just one payer in the overall, multipayer health care system.** While Medicare is the single largest payer in the health care sector, the policy signals from multiple payers can interact in ways that sometimes result in unintended consequences. For example, if a dual-eligible nursing home resident is hospitalized for three days, he or she would then potentially qualify for a Medicare-covered skilled nursing facility stay, shifting the cost burden from the state Medicaid program to the federal Medicare program. Other care for beneficiaries dually eligible for Medicare and Medicaid can be fragmented.

- **Fragmented payment system across multiple settings.** The program sets payment rates each year for at least nine health care settings or provider types: acute care hospitals, physician and other health professional services, home health agencies, skilled nursing facilities, long-term care facilities, hospice, inpatient rehabilitation facilities, ambulatory surgical centers, and end-stage renal disease dialysis facilities. In addition to the yearly rule-making process involved in setting these rates, administrators oversee other parts of the program that operate on fee schedules (ambulances, outpatient lab facilities) or on cost-based payment (rural health centers, critical access hospitals). Payment rates for Part C (Medicare Advantage) are set using administrative pricing based on a competitive process, and Part D payments (prescription drugs) are generally set by market rates. The fragmented payment system across multiple health care settings reduces incentives to provide patient-centered, coordinated care.

**FIGURE
1-21****The Medicare population will become younger and then older**

Source: Census Bureau, 2017 National Population Projections.

- **Coverage of services delivered by any willing provider.** Under Medicare's statute, the program generally covers all medically necessary (a criterion that is open to interpretation) services that are delivered by any willing provider (any provider that is willing to meet Medicare's criteria). As a result, Medicare does not have the authority to develop provider networks or to credential providers, tools that private payers often use to reduce the potential for fraud and abuse. In some cases, the Medicare program even has difficulty removing providers or suppliers whose claims histories clearly demonstrate aberrant patterns of billing, care, or both.
- **The program's benefit design.** Beneficiaries face differential cost sharing by service (for example, coinsurance for physician services is 20 percent, while home health has no coinsurance); in addition, the cost-sharing amounts, percentages, and deductibles vary by setting, and some services are not covered (for example, Medicare does not generally cover long-term care). Medicare Part A and Part B lack a cap on out-of-pocket (OOP) costs (a feature that exists in nearly all private insurance policies). In response, many beneficiaries purchase supplemental coverage that includes an OOP maximum. Most supplemental policies also substantially reduce or eliminate most of the beneficiary liability for coinsurance and deductibles, thereby blunting the impact of cost sharing. As a result, there is little incentive for beneficiaries to be cost conscious—that is, to select only those services that are necessary and choose providers who use efficient clinical practices (Medicare Payment Advisory Commission 2012).
- **Different prices for the same or similar services.** Because of the different settings in which services are delivered, the Medicare program in some cases has different payment rates for the same or similar services. Under these circumstances, providers have an incentive to shift care to the higher paid setting, which leads to increased program spending and higher beneficiary cost sharing.

- ***Undervalued and overvalued services.*** In the process of setting rates for thousands of services, certain services are undervalued relative to others, providing incorrect incentives for their use. For example, the Commission has raised concerns that the Medicare fee schedule overpays for services provided by clinicians in procedural specialties and underpays for services provided by clinicians in primary care specialties (Medicare Payment Advisory Commission 2011a). This imbalance results in significantly higher income for clinicians in procedural specialties relative to those in primary care specialties, contributing to a corresponding imbalance in clinician supply.
- ***Prompt payment standards.*** The Medicare program also follows prompt payment requirements, paying claims within 30 days of receipt. Otherwise, Medicare is liable for interest. This emphasis on timely payment means that, in many cases, the claim may be paid and only thereafter identified as potentially fraudulent or erroneous.
- ***Vulnerability to patient selection, steering, and overuse.*** Another consequence of Medicare's payment structure is its vulnerability to patient selection, steering, and overuse. For example, with some payment systems, it is financially advantageous for providers to treat certain kinds of beneficiaries and avoid others, provide certain types of services over others, or treat beneficiaries in a higher paid setting. In addition, in Medicare's FFS system, providers may be able to increase their revenue by increasing the volume of services they provide without commensurate value to the beneficiary. Further, clinicians can prescribe pharmaceutical drugs and medical devices while receiving payment from manufacturers.

These features make the program vulnerable to inappropriate care, waste, and fraud. GAO annually designates Medicare as a high-risk program because of its size, complexity, and susceptibility to mismanagement and improper payments, which include fraud and errors but not overuse. For fiscal year 2014, the agency found improper payments of 12.7 percent for FFS Medicare, 9 percent for Part C, and 3.3 percent for Part D (Government Accountability Office 2013).

In recent years, CMS has gained new authorities to exclude potentially fraudulent providers from the program and apply different levels of scrutiny to new providers based on their fraud potential. CMS has also further

developed its ability to identify potentially fraudulent billing patterns. However, all of CMS's activities in this area are constrained by resources and are subject to statutory requirements that limit its ability to use the same tools as private insurers to reduce fraud (Government Accountability Office 2013).

The Congress has recognized the need for CMS to pursue value-based purchasing policies. For example, the Improving Medicare Post-Acute Care Transformation Act of 2014 required post-acute care providers to report standardized performance data and linked these measures to payment. Earlier, in 2010, PPACA emphasized tying payment to quality in the Medicare program (e.g., by allowing accountable care organizations that meet quality thresholds to share in cost savings and by reducing payments to hospitals with excessive readmissions and hospital-acquired conditions). PPACA also included new CMS authorities through the establishment of an innovation center to test different payment structures and methodologies; the intention is to reduce program expenditures while maintaining or improving quality of care, which, if successful, could be extended across Medicare.

The Commission's approach to addressing these challenges

Medicare's goal should be to obtain the greatest possible value for the program's expenditures, which means maintaining beneficiaries' access to high-quality services while encouraging efficient use. However, managing payment rates alone will not address the Medicare FFS system's key challenge—that providers are usually paid more for doing more services but are usually not held accountable for outcomes. Resolving this conundrum will require further reform of both the payment and delivery systems.

In pursuit of this goal, the Commission has made multiple recommendations to the Congress and the Secretary that, if implemented, have the potential to improve the quality of care and move the Medicare program beyond just blindly paying FFS rates. For example, the Commission has made the following recommendations:

- ***Site-neutral payments.*** Payments should be based on patient characteristics rather than the site of service.
 - *March 2012*—reduce payment rates for evaluation and management office visits provided in hospital outpatient departments so that total payment rates

for these visits are the same whether the service is provided in an outpatient department or a physician office.

- *March 2015*—eliminate the differences in payment rates between inpatient rehabilitation facilities and skilled nursing facilities for selected conditions.
- **Readmissions measures.** Providers should be measured and held accountable for the share of their patients who are readmitted to the hospital.
 - *June 2008*—confidentially report readmission rates and resource use around hospitalization episodes to hospitals and physicians. Beginning in the third year, providers' relative resource use should be publicly disclosed.
 - *June 2008*—reduce payments to hospitals with relatively high readmission rates for select conditions and allow shared accountability between physicians and hospitals.
 - *March 2012*—reduce payments to skilled nursing facilities with relatively high risk-adjusted rates of rehospitalization during Medicare-covered stays and be expanded to include a time period after discharge from the facility.
 - *March 2014*—reduce payments to home health agencies with relatively high risk-adjusted rates of hospital readmission.
- **Quality measures.** The results of quality measurement programs should be meaningful for providers and patients.
 - *March 2018*—for Medicare Advantage:
 - establish geographic areas for Medicare Advantage quality reporting that accurately reflect health care market areas;
 - calculate star ratings for each contract at the geographic level for public reporting and for the determination of quality bonuses;
 - for any consolidations effective on or after January 1, 2018, require companies to report quality measures using the geographic reporting units and definitions as they existed before consolidation; and
 - determine star ratings as though the consolidations had not occurred and maintain the preconsolidation reporting units until new geographic reporting units are implemented.
- *March 2018*—for physicians:
 - eliminate the current Merit-based Incentive Payment System; and
 - establish a new voluntary value program in FFS Medicare in which:
 - clinicians can elect to be measured as part of a voluntary group and
 - clinicians in voluntary groups can qualify for a value payment based on their group's performance on a set of population-based measures.
- **Value-based payment.** The Medicare program should pay for value rather than quantity.
 - *March 2005*—establish a quality incentive payment policy for hospitals in Medicare.
 - *March 2005*—establish a quality incentive payment policy for physicians in Medicare.
 - *March 2005*—establish a quality incentive payment policy for home health agencies in Medicare.
 - *March 2012*—implement a value-based purchasing program for ambulatory surgical center services no later than 2016.
 - *June 2017*—no later than 2022, create and phase in a voluntary Drug Value Program (DVP) that must have the following elements:
 - Medicare contracts with a small number of private vendors to negotiate prices for Part B products.
 - Providers purchase all DVP products at the price negotiated by their selected DVP vendor.
 - Medicare pays providers the DVP-negotiated price and pays vendors an administrative fee, with opportunities for shared savings.
 - Beneficiaries pay lower cost sharing.

- Medicare payments under the DVP cannot exceed 100 percent of average sales price.
- Vendors use tools including a formulary and, for products meeting selected criteria, binding arbitration.

Conclusion

The high and growing level of health care spending as a share of the economy means that—absent substantial changes in spending or the economy—an ever-increasing amount of the country’s economic activity and gain will be dedicated to purchasing health care. Medicare is the single largest payer in the health care sector and will expand with the aging of the baby-boom generation, greatly increasing program spending. Significant cross-sectional variation in use and spending, which does not correspond to better quality, raises concern that higher health care use and spending are not improving overall health and are putting beneficiaries at risk, both medically and financially.

Because of its size and because other payers use its payment methods, Medicare is an important influence on the nation’s health care delivery system and its evolution. Reciprocally, trends in the private health insurance market can influence whether Medicare’s payment reforms are ultimately successful. Because of this interaction between public and private payers, the alignment of incentives across payers is an important consideration for delivery system reforms.

Despite the relatively lower rates of spending growth recently experienced by Medicare, the program is projected to continue to absorb increasing amounts of federal revenue. Absent changes to current policy, other public investments such as education and infrastructure will be crowded out by high and growing levels of health care spending. State and federal budgets face continued fiscal pressure, effects intensified by health care spending trends. In light of strained federal, family, and individual budgets, the Medicare program must urgently pursue reforms that decrease spending and improve quality. ■

Endnotes

- 1 Going forward, the Medicare Trustees project that opportunities for further generic use may diminish. Growth in the use and development of high-cost specialty drugs is beginning to overtake the moderating price influence of generics (Medicare Payment Advisory Commission 2016).
- 2 Figure 1-2 (p. 9) shows that the share of spending accounted for by private health insurance (35 percent in 2017) is greater than Medicare's share (22 percent in 2017). However, in contrast to Medicare, private health insurance is not a single purchaser of health care; rather, it includes many payers, such as traditional managed care, self-insured health plans, and indemnity plans.
- 3 The Commission's calculations are based on aggregate Part D reimbursements to plans and employers on an incurred basis as shown in Table IV.B10 of the 2018 annual report of the Boards of Trustees of the Medicare trust funds. Per beneficiary spending excludes premium payments.
- 4 Outpatient hospital services and outpatient lab services are combined in Figure 1-6 (p. 14) because a large portion of outpatient laboratory services were bundled into the outpatient prospective payment system effective January 1, 2014.
- 5 The Medicare Trustees project enrollment and costs for each of the three categories of Medicare enrollees: aged, disabled, and end-stage renal disease (ESRD). While the numbers of under-65 and ESRD beneficiaries are projected to increase, this growth is outpaced by the influx of baby boomers turning 65. Aged beneficiaries accounted for about 83 percent of FFS enrollees in 2007, and their number is projected to grow to about 88 percent by 2026.
- 6 In addition to payroll taxes, the HI Trust Fund's income sources include taxation of Social Security benefits (8 percent in 2017), premiums from people who are not eligible for premium-free Part A (1 percent in 2017), general revenue transfers for certain uninsured beneficiaries who are not entitled to HI coverage based on their work history but are eligible through special statutes (less than 1 percent in 2017), monies from fraud and abuse control activities (less than 1 percent in 2017), and interest earned on the trust fund investments (2 percent in 2017).
- 7 The standard HI payroll tax rate is scheduled to remain constant at 2.9 percent (for employees and employers, combined). In addition, starting in 2013, high-income workers pay an additional 0.9 percent of their earnings above \$200,000 for single workers or \$250,000 for married couples filing joint income tax returns.
- 8 For Part D, the beneficiary premium share is based on 25.5 percent of the average cost of the basic benefit.
- 9 Among a range of options for addressing Medicare spending is raising the eligibility age for Medicare. In December 2016, CBO scored the option of gradually increasing the Medicare eligibility age from 65 to 67, beginning in 2020 (Congressional Budget Office 2016b). Implementing this option would reduce federal budget deficits between 2020 and 2026 by \$18 billion. All told, CBO estimates that, by 2046, spending on Medicare (net of offsetting receipts) would be about 2 percent less under this option than it would be under current law, amounting to 5.6 percent of gross domestic product rather than 5.7 percent. On the basis of its estimates for 2020 through 2026, CBO projects that roughly three-fifths of the long-term savings from Medicare under this option would be offset by changes in federal outlays for Social Security, Medicaid, and subsidies for coverage through the marketplaces as well as by reductions in revenues. Supporters of this option point to the increase in overall life expectancy since the introduction of the Medicare program. However, these gains in longevity have not been shared by all Americans. People who have lower socioeconomic status, are racial or ethnic minorities, or live in rural areas all tend to have lower life expectancy. For example, within 5 miles of Washington, DC, residents of Friendship Heights, MD, have a life expectancy of 96.1 years, while those in Anacostia's Barry Farm average 63.2 years (National Center for Health Statistics 2018).
- 10 Other major health programs include Medicaid, the Children's Health Insurance Program, and federal subsidies for the federal and state exchanges legislated under PPACA.
- 11 Household income, health expenditures, and premiums are all measured in nominal dollars.
- 12 Medicare beneficiaries with low income and assets have their premiums and, in some cases, their cost sharing paid for by Medicaid, and some others have retiree coverage or medigap policies that cover cost sharing.
- 13 The National Center for Health Statistics defines life expectancy as the average number of years that a hypothetical group of infants would live at each attained age if the group were subject, throughout its lifetime, to the age-specific death rates prevailing in the actual population in a given year (Arias 2016).
- 14 The authors noted limitations to their study: "Life expectancy estimates for Hispanics, Asian/Pacific Islanders, and American Indians/Alaska Natives should be interpreted with

caution as vital statistics–based mortality rates for these groups tend to be underestimated by 5 percent, 7 percent, and 30 percent, respectively.”

15 The measures of life expectancy and mortality rate are not interchangeable. However, the two measures are closely related. The National Center for Health Statistics life expectancy estimate represents the average number of years of life remaining if a group of persons were to experience the mortality rates for that specific year of calculation over the course of their remaining life.

16 Researchers at the Commonwealth Fund attribute this difference to the effects of the U.S.’s poorer performance on access to care (measured in terms of timeliness and affordability), administrative efficiency (as reported by patients and doctors), and income-related disparities in access to care and quality (Schneider and Squires 2017).

17 Baby boomers are people born during the demographic post–World War II baby boom between the years 1946 and 1964.

18 For example, the Medicare Trustees estimate hospital inpatient admissions per beneficiary will decline through 2022 and begin increasing later in the projection period with the aging of the baby-boom population (Boards of Trustees 2014). CBO also projects comparatively slow growth in per beneficiary spending for the next decade (2015 to 2025) in part because of the influx of younger beneficiaries, who tend to use fewer health care services and therefore lower Medicare’s average spending per beneficiary (Congressional Budget Office 2015).

References

- Aaron, H. J. 2015. *The myth behind America's deficit*. Washington, DC: The Brookings Institution.
- Arias, E. 2016. *Changes in life expectancy by race and hispanic origin in the United States, 2013–2014*. NCHS data brief, no. 244. Hyattsville, MD: National Center for Health Statistics.
- Auerbach, D. I., and A. L. Kellermann. 2011. A decade of health care cost growth has wiped out real income gains for an average US family. *Health Affairs* 30, no. 9 (September): 1630–1636.
- Baicker, K., and A. Chandra. 2006. The labor market effects of rising health insurance premiums. *Journal of Labor Economics* 24, no. 3: 609–634.
- Baily, M. N., and S. E. Holmes. 2015. *Serving the best interests of retirement savers: Framing the issues*. Washington, DC: The Brookings Institution.
- Baker, L. C., M. K. Bundorf, and D. P. Kessler. 2014a. Vertical integration: Hospital ownership of physician practices is associated with higher prices and spending. *Health Affairs* 33, no. 5 (May): 756–763.
- Baker, L. C., M. K. Bundorf, A. B. Royalty, et al. 2014b. Physician practice competition and prices paid by private insurers for office visits. *Journal of the American Medical Association* 312, no. 16 (October 22–29): 1653–1662.
- Beltran-Sanchez, H., C. E. Finch, and E. M. Crimmins. 2015. Twentieth century surge of excess adult male mortality. *Proceedings of the National Academy of Sciences of the United States of America* 112, no. 29 (July 21): 8993–8998.
- Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2018. *2018 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Insurance Trust Funds*. Washington, DC: Boards of Trustees.
- Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2017. *2017 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Insurance Trust Funds*. Washington, DC: Boards of Trustees.
- Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2016. *2016 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Insurance Trust Funds*. Washington, DC: Boards of Trustees.
- Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2014. *2014 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Insurance Trust Funds*. Washington, DC: Boards of Trustees.
- Bureau of Labor Statistics, Department of Labor. 2018. May 2017 national occupational employment and wage estimates United States. <http://www.bls.gov/oes/>.
- Bureau of Labor Statistics, Department of Labor. 2008. May 2007 national occupational employment and wage estimates United States. <http://www.bls.gov/oes/>.
- Case, A., and A. Deaton. 2017. *Mortality and morbidity in the 21st century*. Washington, DC: Brookings Institution.
- Case, A., and A. Deaton. 2015. Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century. *Proceedings of the National Academy of Sciences of the United States of America* 112, no. 49 (December 8): 15078–15083.
- Census Bureau. 2018. Historical income tables. <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-income-households.html>.
- Census Bureau. 2014. National population projections: Downloadable files: Table 1. Projected population by single year of age, sex, race, and Hispanic origin for the United States, 2012 to 2060: Middle series. <https://www.census.gov/data/tables/2014/demo/popproj/2014-summary-tables.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018a. National health expenditures, 1960–2017 historical data. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018b. National health expenditures, projections 2017–2026. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017. National health expenditures, 1960–2016 historical data. <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.html>.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. *2016 actuarial report on the financial outlook for Medicaid*. Baltimore, MD: CMS. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/ActuarialStudies/Downloads/MedicaidReport2016.pdf>.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015. State level chronic conditions report: Medicare utilization and spending. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/MCC_Main.html.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014. *2014 actuarial report on the financial outlook for Medicaid*. Baltimore, MD: CMS.

Chetty, R., M. Stepner, S. Abraham, et al. 2016. The association between income and life expectancy in the United States, 2001–2014. *Journal of the American Medical Association* 315, no. 16 (April 26): 1750–1766.

Compton, W. M., C. M. Jones, and G. T. Baldwin. 2016. Relationship between nonmedical prescription-opioid use and heroin use. *New England Journal of Medicine* 374, no. 2 (January 14): 154–163.

Congressional Budget Office. 2018a. *The 2018 long-term budget outlook*. Washington, DC: CBO.

Congressional Budget Office. 2018b. *The budget and economic outlook: 2018 to 2028*. Washington, DC: CBO.

Congressional Budget Office. 2016a. *Federal subsidies for health insurance coverage for people under age 65: 2016 to 2026*. Washington, DC: CBO.

Congressional Budget Office. 2016b. *Raise the age of eligibility for Medicare to 67*. Washington, DC: CBO.

Congressional Budget Office. 2015. *The budget and economic outlook: 2015 to 2025*. Washington, DC: CBO.

Cooper, Z., S. V. Craig, M. Gaynor, et al. 2018. *That price ain't right? Hospital prices and health spending on the privately insured*. NBER working paper no. 21815. Cambridge, MA: National Bureau of Economic Research.

Cooper, Z., S. V. Craig, M. Gaynor, et al. 2015. *That price ain't right? Hospital prices and health spending on the privately insured*. NBER working paper no. 21815. Cambridge, MA: National Bureau of Economic Research.

Cuckler, G. A., A. M. Sisko, J. A. Poisal, et al. 2018. National Health Expenditure projections, 2017–26: Despite uncertainty, fundamentals primarily drive spending growth. *Health Affairs* 37, no. 3 (March): 482–492.

Cutler, D. M., and N. R. Sahni. 2013. If slow rate of health care spending growth persists, projections may be off by \$770 billion. *Health Affairs* 32, no. 5 (May): 841–850.

Davis, K., K. Stremikis, D. Squires, et al. 2014. *Mirror, mirror on the wall, 2014 update: How the U.S. health care system compares internationally*. New York: Commonwealth Fund. <http://www.commonwealthfund.org/publications/fund-reports/2014/jun/mirror-mirror>.

Ellison, A. 2016. Hospital M&A activity jumps 70% in 5 years. *Becker's Hospital Review*, January 21.

FAIR Health. 2016. *The opioid crisis among the privately insured*. New York, NY: FAIR Health.

Federal Interagency Forum on Aging-Related Statistics. 2016. *Older Americans 2016: Key indicators of well-being*. Washington, DC: Government Printing Office.

Federal Trade Commission. 2016. Keynote address of FTC Chairwoman Edith Ramirez at the Antitrust in Healthcare Conference, May 12. https://www.ftc.gov/system/files/documents/public_statements/950143/160519antitrusthealthcarekeynote.pdf.

Fisher, E. S., D. E. Wennberg, T. A. Stukel, et al. 2003a. The implications of regional variations in Medicare spending. Part 1: The content, quality, and accessibility of care. *Annals of Internal Medicine* 138, no. 4 (February 18): 273–287.

Fisher, E. S., D. E. Wennberg, T. A. Stukel, et al. 2003b. The implications of regional variations in Medicare spending. Part 2: Health outcomes and satisfaction with care. *Annals of Internal Medicine* 138, no. 4 (February 18): 288–298.

Gaynor, M., K. Ho, and R. Town. 2014. *The industrial organization of health care markets*. NBER working paper no. 19800. Cambridge, MA: National Bureau of Economic Research.

Gaynor, M., and R. Town. 2012. *The impact of hospital consolidation — Update*. The Synthesis Project, policy brief no. 9. Princeton, NJ: Robert Wood Johnson Foundation.

Government Accountability Office. 2015. *Medicare: Increasing hospital physician consolidation highlights need for payment reform*. GAO–16–189. Washington, DC: GAO.

Government Accountability Office. 2013. *High-risk series: An update*. Washington, DC: GAO.

Gruber, J. 2000. Health insurance and the labor market. In *Handbook of Health Economics*, vol. 1, edited by A. J. Culyer and J. P. Newhouse. New York, NY: Elsevier Science.

- Hanna, C., and C. Uccello. 2018. *Prescription drug spending in the U.S. health care system: An actuarial perspective*. Washington, DC: American Academy of Actuaries.
- Health Care Cost Institute. 2018. *2016 health care cost and utilization report*. Washington, DC: HCCI.
- Health Care Cost Institute. 2016. *2015 health care cost and utilization report*. Washington, DC: HCCI.
- Health Care Cost Institute. 2015. *2014 health care cost and utilization report*. Washington, DC: HCCI.
- Health Care Cost Institute. 2014. *2013 health care cost and utilization report*. Washington, DC: HCCI.
- Holahan, J., L. Blumberg, and L. Clemans-Cope. 2017. *The evidence on recent health care spending growth and the impact of the Affordable Care Act*. Washington, DC: Urban Institute.
- Hoyert, D. L. 2012. *75 years of mortality in the United States, 1935–2010*. NCHS data brief, no. 88. Hyattsville, MD: National Center for Health Statistics.
- Irving Levin Associates Inc. 2016. *The health care services acquisition report: 22nd edition*. Norwalk, CT: Irving Levin Associates Inc.
- Kaiser Family Foundation and Health Research & Educational Trust. 2018. *Employer health benefits: 2018 annual survey*. Menlo Park, CA: Kaiser Family Foundation/HRET.
- Kane, C. K. 2015. *Updated data on physician practice arrangements: Inching toward hospital ownership*. Chicago, IL: American Medical Association.
- Kochanek, K., E. Arias, and R. N. Anderson. 2015. *Leading causes of death contributing to decrease in life expectancy gap between Black and White populations: United States, 1999–2013*. Data brief, no. 218. Hyattsville, MD: National Center for Health Statistics.
- Martin, A. B., M. Hartman, B. Washington, et al. 2018. National health spending in 2017: Growth slows to post-Great Recession rates; Share of GDP stabilizes. *Health Affairs* (December 6): Published ahead of print.
- Medicare Payment Advisory Commission. 2018. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014a. *A data book: Health care spending and the Medicare program*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014b. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2011a. Moving forward from the sustainable growth rate (SGR) system. Letter to the Congress. October 14.
- Medicare Payment Advisory Commission. 2011b. *Report to the Congress: Regional variation in Medicare service use*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2009. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2008. *Report to the Congress: Reforming the delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2007. *Report to the Congress: Promoting greater efficiency in Medicare*. Washington, DC: MedPAC.
- Milusheva, S., and G. Burtless. 2012. *Effects of employer health costs on the trend and distribution of Social-Security-taxable wages*. Washington, DC: The Brookings Institution.
- Montez, J. K., A. Zajacova, and M. D. Hayward. 2016. Explaining inequalities in women's mortality between U.S. states. *SSM Population Health* 2 (December): 561–571.
- National Center for Health Statistics, Centers for Disease Control and Prevention, Department of Health and Human Services. 2018. *U.S. Small-area Life Expectancy Estimates Project: USALEEP*. Hyattsville, MD: NCHS.

National Center for Health Statistics, Department of Health and Human Services. 2015. *Health, United States, 2014: With special feature on prescription drugs*. Hyattsville, MD: NCHS.

Robinson, J. C., and K. Miller. 2014. Total expenditures per patient in hospital-owned and physician-owned physician organizations in California. *Journal of the American Medical Association* 312, no. 16 (October 22–29): 1663–1669.

Rudd, R. A., N. Aleshire, J. E. Zibbell, et al. 2016. Increases in drug and opioid overdose deaths—United States, 2000–2014. *Morbidity and Mortality Weekly Report* 64, no. 50–51 (January 01): 1378–1382.

Scheffler, R. M., D. R. Arnold, and C. M. Whaley. 2018. Consolidation trends in California’s health care system: Impacts on ACA premiums and outpatient visit prices. *Health Affairs* 37, no. 9 (September): 1409–1416.

Schneider, E. C., and D. Squires. 2017. From last to first: Could the U.S. health care system become the best in the world? *New England Journal of Medicine* 377, no. 10 (September 7): 901–904.

Schwartz, A., B. Landon, A. Elshaug, et al. 2014. Measuring low-value care in Medicare. *JAMA Internal Medicine* 174, no. 7 (July): 1067–1076.

Selden, T. M., Z. Karaca, P. Keenan, et al. 2015. The growing difference between public and private payment rates for inpatient hospital care. *Health Affairs* 34, no. 12 (December 1): 2147–2150.

Singh, G. K., and M. Siahpush. 2014. Widening rural–urban disparities in life expectancy, U.S., 1969–2009. *American Journal of Preventative Medicine* 46, no. 2 (February): e19–e29.

Social Security Administration. 2016. *Income of the population 55 or older*. Baltimore, MD: SSA. http://www.ssa.gov/policy/docs/statcomps/income_pop55/index.html.

Spitalnic, P. 2016. The 2016 Medicare trustees report: One year closer to IPAB cuts? Keynote address at Brookings Institution event at the Brookings Institution, June 23. <https://www.brookings.edu/events/the-2016-medicare-trustees-report-one-year-closer-to-ipab-cuts/>.

Stensland, J., Z. R. Gaumer, and M. E. Miller. 2010. Private-payer profits can induce negative Medicare margins. *Health Affairs* 29, no. 5 (May): 1045–1051.

Tollen, L. 2015. *Health policy brief: Medicaid primary care parity*. Updated May 15. Washington, DC: Health Affairs/Robert Wood Johnson Foundation.

White, C., and V. Y. Wu. 2014. How do hospitals cope with sustained slow growth in Medicare prices? *Health Services Research* 49, no. 1 (February): 11–31.

Zolot, J. 2017. U.S. life expectancy varies depending on county of birth. *American Journal of Nursing* 117, no. 8 (August): 15.

C H A P T E R

2

Assessing payment adequacy and updating payments in fee-for-service Medicare

Assessing payment adequacy and updating payments in fee-for-service Medicare

Chapter summary

As required by law, the Commission annually makes payment update recommendations for providers paid under fee-for-service (FFS) Medicare. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a payment system is changed relative to the prior year. To determine an update, we first assess the adequacy of Medicare payments for providers in the current year (2019) by considering beneficiaries' access to care, the quality of care, providers' access to capital, and Medicare payments and providers' costs. Next, we assess how those providers' costs are likely to change in the year the update will take effect (the policy year, 2020). As part of the process, we examine payments to support the efficient delivery of services, consistent with our statutory mandate. Finally, we make a judgment about what, if any, update is needed. (The Commission also assesses Medicare payment systems for Part C and Part D and makes recommendations as appropriate. But because they are not FFS payment systems, they are not part of the discussion in this chapter.)

This year, we consider recommendations in nine FFS sectors: acute care hospitals, physicians and other health professionals, ambulatory surgical centers, outpatient dialysis facilities, skilled nursing facilities, home health care agencies, inpatient rehabilitation facilities, long-term care hospitals, and hospices. Each year, the Commission looks at all available indicators of

In this chapter

- Are Medicare payments adequate in 2019?
- What cost changes are expected in 2020?
- How should Medicare payments change in 2020?
- Payment adequacy in context

payment adequacy and reevaluates any assumptions from prior years, using the most recent data available to make sure its recommendations accurately reflect current conditions. We may also consider recommending changes that redistribute payments within a payment system to correct any biases that may make treating patients with certain conditions financially undesirable, make particular procedures unusually profitable, or otherwise result in inequity among providers. Finally, we may also make recommendations to improve program integrity.

Our recommendations, if enacted, could significantly change the revenues providers receive from Medicare. Rates set to cover the costs of relatively efficient providers help create fiscal pressure on all providers to control their costs. Medicare rates also have broader implications for health care spending. For example, Medicare rates are commonly used to set hospital rates charged to uninsured patients eligible for financial assistance, used by Medicare Advantage plans to set hospital prices, and used by the Department of Veterans Affairs (VA) to pay non-VA providers (Department of Veterans Affairs 2010, Internal Revenue Service 2014, Medicare Payment Advisory Commission 2013).

The Commission also examines payment rates for services that can be provided in multiple settings. Medicare often pays different amounts for similar services across settings. Basing the payment on the rate in the most efficient setting would save money for Medicare, reduce cost sharing for beneficiaries, and reduce the financial incentive to provide services in the higher paid setting. However, putting into practice the principle of paying the same rate for the same service across settings can be complex because it requires that the definition of the services and the characteristics of the beneficiaries be sufficiently similar across settings. In March 2012, we recommended equalizing rates for evaluation and management office visits provided in hospital outpatient departments and physicians' offices (Medicare Payment Advisory Commission 2012). In 2014, we extended that recommendation to additional services provided in those two settings and recommended consistent payment between acute care hospitals and long-term care hospitals for certain classes of patients (Medicare Payment Advisory Commission 2014). In the Bipartisan Budget Act of 2015, the Congress made payment to outpatient departments for certain services equal to the physician fee schedule rates for those same services provided at any new outpatient off-campus location beginning in 2018.

In 2016, to make payments across all of the post-acute care payment settings comparable, the Commission recommended elements of a single prospective payment system (PPS) for all post-acute care to replace the four independent PPSs

in use today (the skilled nursing facility, inpatient rehabilitation facility, long-term care hospital, and home health PPSs) (Medicare Payment Advisory Commission 2016). Most recently, in 2018, we recommended blending setting-specific and unified post-acute care PPS relative weights to help transition to a unified system (Medicare Payment Advisory Commission 2018). The Commission will continue to analyze opportunities for applying this principle to other services and settings. ■

Background

The goal of Medicare payment policy should be to obtain good value for the program's expenditures, which means maintaining beneficiaries' access to high-quality services while encouraging efficient use of resources. Anything less does not serve the interests of the taxpayers and beneficiaries who finance Medicare through their taxes and premiums. Steps toward this goal involve:

- setting the base payment rate (i.e., the payment for services of average complexity) at the right level;
- developing payment adjustments that accurately reflect market, service, and patient cost differences beyond providers' control;
- adjusting payments for quality; and
- considering the need for annual payment updates and other policy changes.

To help determine the appropriate base payment rate for a given payment system in 2020, we first consider whether payments are adequate for relatively efficient providers in 2019. To inform the Commission's judgment, we examine the most recent available data on beneficiaries' access to care, the quality of care, and providers' access to capital, as well as projected Medicare payments and providers' costs for 2019. We then consider how providers' costs will change in 2020. Taking these factors into account, we recommend how Medicare payments for the sector in aggregate should change in 2020.

Within a given level of funding for a sector, we may also consider changes in payment policy to improve relative payment accuracy across patients and procedures. Such changes are intended to improve equity among providers or access to care for beneficiaries and may also affect the distribution of payments among providers in a sector. For example, in 2018, the Commission recommended that CMS use a blend of the setting-specific relative weights and the unified post-acute care (PAC)–prospective payment system (PPS) relative weights for each of the four PAC settings to redistribute payments within each setting toward medically complex patients (Medicare Payment Advisory Commission 2018).

We also make recommendations to improve program integrity when needed. In some cases, our data analysis reveals problematic variation in service utilization across

geographic regions or providers. For example, in reaction to patterns of unusually long stays in a subset of hospices, we recommended medical review focused on hospices that have many long-stay patients. In 2016, we recommended the Secretary closely examine the coding practices of certain inpatient rehabilitation facilities that appear to result in very high Medicare margins.

We compare our recommendations for updates and other policy changes for 2020 with the base payment rates specified in law to understand the implications for beneficiaries, providers, and the Medicare program. As has been the Commission's policy in the past, we consider our recommendations each year in light of the most current data and, in general, recommend updates for a single year.

Are Medicare payments adequate in 2019?

The first part of the Commission's approach to developing payment updates is to assess the adequacy of current Medicare payments. For each sector, we make a judgment by examining information on the following:

- beneficiaries' access to care
- quality of care
- providers' access to capital
- Medicare payments and providers' costs for 2019

Some measures focus on beneficiaries (e.g., access to care) and some focus on providers (e.g., the relationship between payments and costs). The direct relevance, availability, and quality of each type of information vary among sectors, and no single measure provides all the information needed for the Commission to judge payment adequacy. Ultimately, the Commission makes its recommendations considering all of these factors.

Beneficiaries' access to care

Access to care is an important indicator of the willingness of providers to serve Medicare beneficiaries and the adequacy of Medicare payments. For example, poor access could indicate that Medicare payments are too low. However, factors unrelated to Medicare's payment policies may also affect access to care. These factors include coverage policies, beneficiaries' preferences, local market conditions, and supplemental insurance.

The measures we use to assess beneficiaries' access to care depend on the availability and relevance of information in each sector. We use results from several surveys to assess the willingness of physicians and other health professionals to serve beneficiaries and beneficiaries' opinions about their access to physician and other health professional services. For home health services, we examine data on whether communities are served by providers.

Access: Capacity and supply of providers

Rapid growth in the capacity of providers to furnish care may increase beneficiaries' access and indicate that payments are more than adequate to cover providers' costs. Changes in technology and practice patterns may also affect providers' capacity. For example, less invasive procedures could be performed in outpatient settings, and lower priced equipment could be more easily purchased by providers, increasing the capacity to provide certain services.

Substantial increases in the number of providers may suggest that payments are more than adequate and could raise concerns about the value of the services being furnished. If Medicare is not the dominant payer for a given provider type (such as ambulatory surgical centers), changes in the number of providers may be influenced more by other payers and their demand for services and thus may be difficult to relate to Medicare payments. When facilities close, we try to distinguish between closures that have serious implications for access to care in a community and those that may have resulted from excess capacity. For example, in 2016, Medicare's payment rates for certain cases in long-term care hospitals (LTCHs) decreased significantly, and about 40 LTCHs closed—nearly 10 percent of LTCH facilities and beds. However, the closures primarily occurred in market areas with multiple LTCHs, and overall LTCH occupancy declined during the same time period—indicating adequate capacity.

Access: Volume of services

The volume of services can be an indirect indicator of beneficiary access to services. An increase in volume shows that beneficiaries are receiving more services and suggests sufficient access—although it does not necessarily demonstrate that the services are appropriate. Volume is also an indicator of payment adequacy; an increase in volume beyond what would be expected relative to the increase in the number of beneficiaries could suggest that Medicare's payment rates are too high. Very rapid increases in the volume of a service might even raise

questions about program integrity or whether the definition of the corresponding benefit is too vague. Reductions in the volume of services can sometimes be a signal that revenues are inadequate for providers to continue operating or to provide the same level of service. Finally, rapid changes in volume between sectors whose services can be substituted for one another may suggest distortions in payment and raise questions about provider equity. For example, payment rates for evaluation and management (E&M) office visits are much higher in hospital outpatient departments (HOPDs) than in physicians' offices, and over the last several years, the volume of those services in HOPDs has increased while the volume in physicians' offices has decreased.

However, changes in the volume of services are not direct indicators of access; increases and decreases can be explained by other factors such as population changes, changes in disease prevalence among beneficiaries, technology, practice patterns, deliberate policy interventions, and beneficiaries' preferences. For example, the number of Medicare beneficiaries in the traditional fee-for-service (FFS) program varies from year to year; therefore, we look at the volume of services per FFS beneficiary as well as the total volume of services. Explicit policy decisions can also influence volume. For example, during fiscal year 2016, CMS began phasing in a policy that lowers payments for certain LTCH cases. As a result, LTCHs—as expected—changed their admitting practices largely in response to the implementation of the policy, and the number of LTCH discharges decreased markedly.

Changes in the volume of physician services must be interpreted particularly cautiously. Evidence suggests that for discretionary services, volume may go up when payment rates go down—the so-called volume offset. Whether a volume offset phenomenon exists in other sectors depends on how discretionary the services are and on the ability of providers to influence beneficiaries' demand for them.

Access: Marginal profit

Another factor we consider when evaluating access to care is whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (e.g., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an

additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries. We note, however, that in instances in which a sector does not have substantial excess capacity or in which Medicare composes a dominant share of a sector's patients, marginal profit may be a less useful indicator of access to care.

Quality of care

The relationship between the quality of care and the adequacy of Medicare payment is not direct. Simply increasing payments through an update for all providers in a sector, regardless of their individual quality, is unlikely to influence the quality of care because, historically, Medicare payment systems have created little or no incentive for providers to spend additional resources on improving quality.

The Medicare program has begun to implement quality-based payment policies in a number of sectors; however, some issues have arisen. First, it is very difficult to differentiate quality performance among providers when the number of cases per provider is low. This issue has been particularly vexing in measuring quality performance for individual clinicians. Second, the Commission has been increasingly concerned that Medicare's approach to quality measurement is flawed because it relies on too many clinical process measures. Many current process measures are weakly correlated with outcomes of interest such as mortality and readmissions, and most process measures focus on addressing the underuse of services, while the Commission believes that overuse and inappropriate use are also of concern. Third, reliance on provider-reported measures can create a burden on providers and can lead to biased reporting in response to strong financial incentives. As an example of the latter, since 2014, home health agencies reported improvements in provider-reported measures such as transferring and walking, even though more objective, claims-based outcome measures (such as the use of emergency department care and hospital admissions) have not improved or have worsened.

As an alternative approach, we have begun exploring the use of a small set of population-based outcome measures to assess and compare the performance of FFS Medicare, Medicare Advantage, and Medicare accountable care organizations within a local area. For example, in Chapter 15, we discuss a small set of outcome, patient experience,

and cost measures for use in a hospital value incentive program (HVIP).

Providers' access to capital

Providers must have access to capital to maintain and modernize their facilities and to improve their capability to deliver patient care. Widespread ability to access capital throughout a sector may reflect the adequacy of Medicare payments. Some sectors such as hospitals require large capital investments, and access to capital can be a useful indicator. Other sectors such as home health care do not need large capital investments, so access to capital is a more limited indicator. In some cases, a broader measure such as changes in employment may be a useful indicator of financial health within a sector. Similarly, in sectors where providers derive most of their payments from other payers (such as ambulatory surgical centers) or other lines of business, or when conditions in the credit markets are extreme, access to capital may be a limited indicator of the adequacy of Medicare payments.

One indicator of a sector's access to capital is its all-payer profitability reflecting income from all sources. We refer to this amount as the sector's total margin, which is calculated as aggregate income, minus costs, divided by income. Total margins can inform our assessment of a sector's overall financial condition and hence its access to capital.

Medicare payments and providers' costs for 2019

For most payment sectors, we estimate Medicare payments and providers' costs for 2019 to inform our update recommendations for 2020. To maintain Medicare beneficiaries' access to high-quality care while keeping financial pressure on providers to make better use of taxpayers' and beneficiaries' resources, we investigate whether payments are adequate to cover the costs of relatively efficient providers, where available data permit such providers to be defined.

Relatively efficient providers use fewer inputs to produce quality outputs. Efficiency could be increased by using the same inputs to produce a higher quality output or by using fewer inputs to produce the same quality output. The Commission follows two principles when selecting a set of efficient providers. First, the providers must do relatively well on cost and quality metrics. Second, the performance has to be consistent, meaning that the provider cannot have poor performance on any metric over the past three

years. The Commission’s approach is to develop a set of criteria and then examine how many providers meet those criteria. It does not establish a set share of providers to be considered efficient and then define criteria to meet that pool size.

For providers that submit cost reports to CMS—acute care hospitals, skilled nursing facilities (SNFs), home health agencies, outpatient dialysis facilities, inpatient rehabilitation facilities (IRFs), LTCHs, and hospices—we estimate total Medicare-allowable costs and assess the relationship between Medicare’s payments and those costs. We typically express the relationship between payments and costs as a payment margin, which is calculated as aggregate Medicare payments for a sector, minus costs, divided by payments. By this measure, if costs increase faster than payments, margins will decrease.

In general, to estimate payments, we first apply the annual payment updates specified in law for 2018 and 2019 to our base data (2017 for most sectors). We then model the effects of other policy changes that will affect the level of payments in 2019. To estimate 2019 costs, we consider the rate of input price inflation or historical cost growth, and, as appropriate, we adjust for changes in the product (such as fewer visits per episode of home health care) and trends in key indicators (such as historical cost growth and the distribution of cost growth among providers).

Use of margins

In most cases, we assess Medicare margins for the services furnished in a single sector and covered by a specific payment system (e.g., SNF or home health services). However, in the case of hospitals, which often provide services that are paid for by multiple Medicare payment systems, our measures of payments and costs for an individual sector could become distorted because of the allocation of overhead costs or the presence of complementary services. For example, having a hospital-based SNF or IRF may allow a hospital to achieve shorter lengths of stay in its acute care units, thereby decreasing costs and increasing inpatient margins. For hospitals, we assess the adequacy of payments for the whole range of Medicare services they furnish—inpatient and outpatient (which together account for more than 90 percent of Medicare payments to hospitals), SNF, home health, psychiatric, and rehabilitation services—and compute an overall Medicare hospital margin encompassing costs and payments for all the sectors. The hospital update recommendation in Chapter 3 applies to hospital

inpatient and outpatient payments; the updates for other distinct units of the hospital, such as SNFs, are covered in separate chapters.

The adequacy of Medicare payments is assessed relative to the costs of treating Medicare beneficiaries, and the Commission’s recommendations address a sector’s Medicare payments, not total payments. We calculate a sector’s Medicare margin to determine whether total Medicare payments cover average providers’ costs for treating Medicare patients and to inform our judgment about payment adequacy. Margins will always be distributed around the average, and aggregate payment adequacy does not mean that every provider has a positive Medicare margin. To assess whether changes are needed in the distribution of payments, we calculate Medicare margins for certain subgroups of providers with unique roles in the health care system. For example, because location and teaching status enter into the payment formula, we calculate Medicare margins based on where hospitals are located (in urban or rural areas) and their teaching status (major teaching, other teaching, or nonteaching).

Multiple factors can contribute to changes in the Medicare margin, including changes in the efficiency of providers, changes in coding that may change case-mix adjustment, and other changes in the product (e.g., reduced lengths of stay at inpatient hospitals). Knowing whether these factors have contributed to margin changes may inform decisions about whether and how much to change payments.

In sectors where the data are available, the Commission makes a judgment when assessing the adequacy of payments relative to costs. No single standard governs this relationship for all sectors, and margins are only one indicator for determining payment adequacy. Moreover, although payments can be ascertained with some accuracy, there may be no “true” value for reported costs, which reflect accounting choices made by providers (such as allocations of costs to different services) and the relationship of service volume to capacity in a given year. Further, even if costs are accurately reported, they reflect strategic investment decisions of individual providers, and Medicare—as a prudent payer—may choose not to recognize some of these costs or may exert financial pressure on providers to encourage them to reduce their costs.

Appropriateness of current costs

Our assessment of the relationship between Medicare’s payments and providers’ costs is complicated by differences in providers’ efficiency, responses to changes

in payment systems, product changes, and cost reporting accuracy. Measuring the appropriateness of costs is particularly difficult in new payment systems because changes in response to the incentives in the new system are to be expected. For example, the number and types of visits in a home health episode changed significantly after the home health PPS was introduced, although the payments were based on the older, higher level of use and costs. In other systems, coding may change. As an example, the hospital inpatient PPS introduced a new patient classification system in 2008 to improve payment accuracy. However, for a number of years after its implementation, it resulted in higher payments because provider coding became more detailed, making patient complexity appear higher—although the underlying patient complexity was largely unchanged. Any kind of rapid change in policy, technology, or product can make it difficult to measure costs per unit.

To assess whether reported costs reflect the costs of efficient providers, we examine recent trends in the average cost per unit, variation in standardized costs and cost growth, and evidence of change in the product. One issue Medicare faces is the extent to which private payers exert pressure on providers to constrain costs. If private payers do not exert pressure, providers' costs will increase and, all other things being equal, margins on Medicare patients will decrease. Providers who are under pressure to constrain costs generally have managed to slow their growth in costs more than those who face less pressure (Medicare Payment Advisory Commission 2011, Robinson 2011, White and Wu 2014). Some have suggested that, in the hospital sector, costs are largely outside the control of hospitals and that hospitals shift costs onto private insurers to offset Medicare losses. This belief assumes that costs are immutable and not influenced by whether the hospital is under financial pressure. We find that costs do vary in response to financial pressure and that low margins on Medicare patients can result from a high cost structure that has developed in reaction to high private-payer rates. In other words, when providers (particularly not-for-profit providers) receive high payment rates from insurers, they face less pressure to keep their costs low, and so, all other things being equal, their Medicare margins are low because their costs are high. (For-profit providers may prefer to keep costs low to maximize returns to stockholders and, indeed, often have higher Medicare margins than similar nonprofit providers.) Lack of pressure is more common in markets where a few providers dominate and have negotiating leverage over

payers. In some sectors, Medicare itself could, and should, exert greater pressure on providers to reduce costs.

Variation in cost growth among a sector's providers can give us insight into the range of performance that facilities can achieve. For example, if some providers' costs grow more rapidly than others in a given sector, we might question whether those rapid increases are appropriate. Changes in product can also significantly affect unit costs. Returning to the example of home health services, one would expect that substantial reductions in the number of visits per 60-day home health episode would reduce costs per episode. If costs per episode instead were to increase while the number of visits were to decrease, one would question the appropriateness of the cost growth and not increase Medicare payments in response.

In summary, Medicare payment policy should not be designed simply to accommodate whatever level of cost growth a sector demonstrates. Cost growth can oscillate from year to year depending on factors such as economic conditions and relative market power. Payment policy should accommodate cost growth only after taking into account a broad set of payment adequacy indicators, including the current level of Medicare payments.

What cost changes are expected in 2020?

The second part of the Commission's approach to developing payment update recommendations is to consider anticipated policy and cost changes in the next payment year. For each sector, we review evidence about the factors that are expected to affect providers' costs. One factor is the change in input prices, as measured by the price index that CMS uses for that sector. (These indexes are estimated quarterly; we use the most recent estimate available when we do our analyses.) For facility providers, we start with the forecasted increase in an industry-specific index of national input prices, called a "market basket index." For physician services, we start with a CMS-derived weighted average of price changes for inputs used to provide physician services. Forecasts of these indexes approximate how much providers' costs would change in the coming year if the quality and mix of inputs they use to furnish care remained constant—that is, if there were no change in efficiency. Other factors may include the trend in actual cost growth, which could be

used to inform our estimate if it differs significantly from the projected market basket.

How should Medicare payments change in 2020?

The Commission's judgments about payment adequacy, forthcoming policy changes, and expected cost changes result in an update recommendation for each payment system. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a payment system is changed relative to the prior year. In considering updates, the Commission makes its recommendations for 2020 relative to the 2019 base payment as defined in Medicare's authorizing statute—Title XVIII of the Social Security Act. The Commission's recommendations may call for an increase, a decrease, or no change from the 2019 base payment. For example, if the statutory base payment for a sector were \$100 in 2019, an update recommendation of a 1 percent increase for a sector means that we are recommending that the base payment in 2020 for that sector be 1 percent greater, or \$101.

When our recommendations differ from current law, as they often do, the Congress and the Secretary of Health and Human Services would have to take action and change law or regulation to put them into effect. Each year, we look at all available indicators of payment adequacy and reevaluate prior-year assumptions using the most recent data available. The Commission does not start with any presumption that an update is needed or that any increase in costs should be automatically offset by a payment update. Instead, an update (which may be positive, zero, or negative) is warranted only if it is supported by the empirical data, in the judgment of the Commission.

In conjunction with the update recommendations, we may also make recommendations to improve payment accuracy that might in turn affect the distribution of payments among providers. These distributional changes are sometimes, but not always, budget neutral. Our recommendation to shift payment weights from therapy to medically complex PAC cases is one example of a distributional change that would affect providers differentially based on their patients' characteristics.

The Commission, as it makes its update recommendations, may in some cases take into consideration payment differentials across sectors and make sure the relative update recommendations for the sectors do not exacerbate

existing incentives to choose a site of care based on payment considerations. The difficulty of harmonizing payments across sectors to remove inappropriate incentives illustrates one weakness of FFS payment systems specific to each provider type and highlights the importance of moving beyond FFS to more global and patient-centric payment systems. As we continue to support moving Medicare payment systems toward those approaches, we will also continue to look for opportunities to rationalize payments for specific services across sectors to approximate paying the costs of the most efficient sector and lessen financial incentives to prefer one sector over another. Our June 2016 report on a unified PAC PPS addressed these issues directly (Medicare Payment Advisory Commission 2016).

Consistent payment for the same service across settings

A beneficiary can sometimes receive a similar service in different settings. Depending on which setting the beneficiary or the treating clinician chooses, Medicare and the beneficiary may pay different amounts. For example, when leaving the hospital, patients with joint replacements requiring physical therapy might be discharged with home health care or outpatient therapy, or they might be discharged to a SNF or IRF, and Medicare payments (and beneficiary cost sharing) can differ widely as a result.

A core principle guiding the Commission is that Medicare should pay the same amount for the same service, even when it is provided in different settings. Putting this principle into practice requires that the definition of services in the settings and the characteristics of the patients be sufficiently similar. Where these conditions are not met, offsetting adjustments would have to be made to ensure comparability. Because Medicare's payment systems were developed independently and have had different update trajectories, payments for similar services can vary widely. Such differences create opportunities for Medicare and beneficiary savings if payment is set at the level applicable to the lowest priced setting in which the service can be safely performed. For example, under the current payment systems, a beneficiary can receive the same physician visit service in a hospital outpatient clinic or in a physician's office. In fact, the same physician could see the same patient and provide the same service, but depending on whether the service is provided in an outpatient clinic or in a physician's office, Medicare's payment and the beneficiary's coinsurance can differ by 80 percent or more.

In 2012, the Commission recommended that payments for E&M office visits in the outpatient and physician office sectors be made equal. This service is comparable across the two settings. Our recommendation sets payment rates for E&M office visits both in the outpatient department and physician office sectors equal to those in the physician fee schedule, lowering both program spending and beneficiary liability (Medicare Payment Advisory Commission 2012). In 2014, we extended that principle to additional services for which payment rates in the outpatient PPS should be lowered to better match payment rates in the physician office setting (Medicare Payment Advisory Commission 2014). In the Bipartisan Budget Act of 2015, the Congress made payment for outpatient departments for the same services equal to the physician fee schedule rates for those services at any new outpatient off-campus clinic beginning in 2018. We also recommended consistent payment between acute care hospitals and long-term care hospitals for certain categories of patients (Medicare Payment Advisory Commission 2014). In 2016, we recommended elements of a unified PAC PPS that would make payments based on patients' needs and characteristics, generally irrespective of the PAC entity that provided their care (Medicare Payment Advisory Commission 2016). The Commission will continue to study other services that are provided in multiple sites of care to find additional services for which the principle of the same payment for the same service can be applied.

Budgetary consequences

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 requires the Commission to consider the budgetary consequences of our recommendations. Therefore, this report documents how spending for each recommendation would compare with expected spending under current law. We also assess the effects of our recommendations on beneficiaries and providers. Although we recognize budgetary consequences, our recommendations are not driven by any specific budget target but, instead, reflect our assessment of the level of payment needed to provide adequate access to appropriate care.

Payment adequacy in context

As discussed in Chapter 1, it is essential to look at payment adequacy not only within the context of individual payment systems but also in terms of Medicare

as a whole. The Commission is concerned by any increase in Medicare spending per beneficiary without a commensurate increase in value such as higher quality of care or improved health status. Growth in spending per beneficiary, combined with the aging of the baby boomers, will result in the Medicare program absorbing increasing shares of the gross domestic product and federal spending. Medicare's rising costs are projected to exhaust the Hospital Insurance Trust Fund (which funds Medicare Part A) and significantly burden taxpayers. Ensuring that the recent moderate growth trends in Medicare spending per beneficiary continue will require vigilance. The financial future of Medicare prompts us to look at payment policy and ask what can be done to develop, implement, and refine payment systems to reward quality and efficient use of resources while improving payment equity.

In many past reports, the Commission has stated that Medicare should institute policies that improve the program's value to beneficiaries and taxpayers. CMS is beginning to take such steps, and we discuss them in the sector-specific chapters that follow. Ultimately, increasing Medicare's value to beneficiaries and taxpayers requires knowledge about the costs and health outcomes of services. Until more information about the comparative effectiveness of new and existing health care treatments and technologies is available, patients, providers, and the program will have difficulty determining what constitutes high-quality care and effective use of resources.

As we examine each of the payment systems, we also look for opportunities to develop policies that create incentives for providing high-quality care efficiently across providers and over time. Some of the current payment systems create strong incentives for increasing volume, and very few of these systems encourage providers to work together toward common goals. Alternative payment models (e.g., the Next Generation accountable care organization model) are meant to stimulate delivery system reform toward more integrated and value-oriented health care systems and may address these issues. In the near term, the Commission will continue to closely examine a broad set of indicators, make sure there is consistent pressure on providers to control their costs, and set a demanding standard for determining which sectors qualify for a payment update each year. In the longer term, pressure on providers may cause them to increase their participation in alternative payment models. We will continue to contribute to the development of those models and to increase their efficacy. ■

References

Department of Veterans Affairs. 2010. VA announces use of standard payment rates for some non-VA care. Press release. December 16. <http://www.va.gov/opa/pressrel/pressrelease.cfm?id=2021>.

Internal Revenue Service, Department of the Treasury. 2014. Additional requirements for charitable hospitals; community health needs assessments for charitable hospitals; requirement of a Section 4959 excise tax return and time for filing the return. Final rule. *Federal Register* 79, no. 250 (December 31): 78954–79016.

Medicare Payment Advisory Commission. 2018. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2016. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2014. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2011. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Robinson, J. 2011. Hospitals respond to Medicare payment shortfalls by both shifting costs and cutting them, based on market concentration. *Health Affairs* 30, no. 7 (July): 1265–1271.

White, C., and V. Y. Wu. 2014. How do hospitals cope with sustained slow growth in Medicare prices? *Health Services Research* 49, no. 1 (February): 11–31.

C H A P T E R

3

Hospital inpatient and outpatient services

R E C O M M E N D A T I O N

3

The Congress should:

- Replace Medicare's current hospital quality programs with a new hospital value incentive program (HVIP) that:
 - includes a small set of population-based outcome, patient experience, and value measures;
 - scores all hospitals based on the same absolute and prospectively set performance targets;
 - accounts for differences in patients' social risk factors by distributing payment adjustments through peer grouping, and
- For 2020, update the 2019 Medicare base payment rates for acute care hospitals by 2 percent. The difference between the update recommendation and the amount specified in current law should be used to increase payments in a new HVIP.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Hospital inpatient and outpatient services

Chapter summary

In 2017, the Medicare fee-for-service (FFS) program paid 4,700 hospitals \$190 billion consisting of \$119 billion for about 10 million Medicare inpatient admissions, \$66 billion for about 200 million outpatient services, and \$6 billion for uncompensated care provided to non-Medicare patients. On net, inpatient payments increased by \$2.6 billion (2.2 percent) and outpatient payments increased by almost \$4.9 billion (8.1 percent). Inpatient payments increased primarily due to a 1 percent increase in payment rates, a slight increase in discharges per capita, and an increase in case mix. Outpatient payments increased due to rapid growth in Part B drug spending, a continued shift in the site of service billing from physician offices to hospital outpatient departments, and an increase in outpatient payment rates. In contrast, payments for uncompensated care decreased by about \$0.4 billion. Thus, on net, between 2016 and 2017, overall hospital spending increased \$7 billion. Over this same period, hospital spending per FFS beneficiary rose 4.3 percent, increasing from \$4,992 to \$5,208.

Assessment of payment adequacy

Most payment adequacy indicators (including access to care, quality of care, and access to capital) are positive. Average Medicare margins continue to be negative, although hospitals with excess capacity still have an incentive to see

In this chapter

- Are Medicare payments adequate in 2019?
- How should Medicare payment rates change in 2020?

Medicare beneficiaries because Medicare payment rates remain about 8 percent higher than the variable costs associated with Medicare patients.

Beneficiaries' access to care—Access measures for hospital services include the capacity of providers and the volume of services.

- ***Capacity and supply of providers***—In 2017, the average hospital occupancy rate was 62.5 percent, suggesting that hospitals have excess inpatient capacity in most markets. Because Medicare payments exceed the marginal cost of providing services, hospitals with excess capacity have a financial incentive to increase services provided to Medicare beneficiaries. Marginal profits were approximately 8 percent on average in 2017.
- ***Volume of services***—After declining over several years, inpatient use per beneficiary in 2017 increased by 0.7 percent. Outpatient visits per beneficiary also increased by 0.7 percent, a slower pace of outpatient volume growth than in recent years.

Quality of care—From 2013 to 2017, hospital mortality and readmission rates improved slowly. Patient satisfaction also improved somewhat: The share of patients who rated their hospital a 9 or 10 on a 10-point scale increased from 71 percent to 73 percent.

Providers' access to capital—Access to bond markets has been strong, with hospital bond offerings in 2015, 2016, and 2017 of \$24 billion, \$38 billion, and \$35 billion, respectively. While some hospitals struggle with low occupancy and limited access to capital, most hospitals have good access to capital because of strong all-payer profit margins. All-payer margins were 7.1 percent in 2017, only 0.1 percentage point below their all-time high of 7.2 percent in 2013.

Medicare payments and providers' costs—In 2017, hospitals' aggregate Medicare margin was –9.9 percent, down slightly from –9.7 percent in 2016. The profit margin for relatively efficient providers was about –2 percent. The decline in margins from 2016 to 2017 was primarily due to a decline in supplemental payments for uncompensated care and health information technology. Patient care margins, which exclude uncompensated care payments, increased slightly since 2016 due to a large increase in spending on Part B drugs, which have higher profit margins (in part due to the 340B program) than other hospital services. We project that the overall Medicare margin will decline to about –11 percent in 2019.

How should payment rates change in 2020?

For 2020, the Commission recommends that the Congress update Medicare inpatient and outpatient payment rates by 2 percent. This update recommendation

is based on indicators of beneficiaries' access to hospital care, hospitals' access to capital, hospital quality, and the relationship between Medicare payments and hospital costs. As we discuss in Chapter 15, the Commission is also recommending a new hospital value incentive program (HVIP) that aligns with the Commission's principles for quality measurement and replaces the current quality incentive programs. The difference between the 2 percent update and the update amount specified in current law (expected to be 2.8 percent) should be used to increase payments in the new HVIP. Together, these recommendations would increase hospital payments by increasing the base payment rate and by increasing the average rewards hospitals receive under the proposed Medicare HVIP. On net, the 2 percent update, the expected increase in the inpatient HVIP rewards (expected to be equal to 0.8 percent of all payments), and the elimination of the inpatient penalties in the current quality programs (equal to 0.5 percent of all payments) would be expected to increase hospital payment rates by an average of 3.3 percent. ■

**TABLE
3-1****Growth in Medicare inpatient and outpatient spending**

Hospital services	2007	2016	2017	Average annual percent change 2007–2016	Percent change 2016–2017
Inpatient services					
Total FFS payments (in billions)	\$111.3	\$116.0	\$118.6	0.5%	2.2%
Payments per FFS beneficiary	3,148	3,026	3,102	–0.4	2.5
Outpatient services					
Total FFS payments (in billions)	30.9	60.6	65.5	7.8	8.1
Payments per FFS beneficiary	953	1,799	1,950	7.3	8.4
Uncompensated care payments					
Total (in billions)	N/A	6.4	6.0	N/A	–6.7
Payments per FFS beneficiary	N/A	167	156	N/A	–6.4
Inpatient, outpatient, and uncompensated care payments					
Total FFS payments (in billions)	142.2	183.0	190.1	2.9	3.8
Payments per FFS beneficiary	4,101	4,992	5,208	2.3	4.3

Note: FFS (fee-for-service), N/A (not applicable). Reported hospital FFS spending includes all hospitals covered by Medicare's inpatient prospective payment system along with critical access hospitals and Maryland hospitals. Fiscal year 2017 payments include partial imputation to account for the hospitals that had not yet submitted cost reports covering fiscal year 2017. The combined amount for inpatient and outpatient services per capita is based on a weighted average of Part A and Part B services. Percent change columns were calculated before rounding and may not be computable from the payment data in the table, which were rounded.

Source: MedPAC analysis of CMS Medicare hospital cost reports and Medicare Provider Analysis and Review files.

Background

Medicare spending on hospitals

In 2017, the Medicare fee-for-service (FFS) program paid acute care hospitals almost \$119 billion for inpatient care, about \$66 billion for outpatient care, and \$6 billion in payments for uncompensated care (Table 3-1). From 2016 to 2017, inpatient payments increased by 2.2 percent, or \$2.6 billion. This growth in inpatient payments resulted from an increase in payment rates of 1 percent, a 0.7 percent increase in the number of inpatient admissions, and a 0.6 percent increase in inpatient case mix.¹ In the same period, outpatient payments per FFS beneficiary grew by 8.1 percent, or approximately \$5 billion. The increase in outpatient payments reflects a 20 percent increase in payments for Part B drugs, growing outpatient visit volume, and an increase in physician services billed as hospital outpatient services after hospitals acquired

physician practices. Driven largely by outpatient spending, overall Medicare spending on inpatient, outpatient, and uncompensated care increased 4.3 percent per FFS beneficiary in 2017.²

Part of the growth in Medicare spending per beneficiary could be due to the shift in beneficiaries toward Medicare Advantage (MA) plans. From 2016 to 2017, MA enrollment increased 1.3 million while FFS enrollment declined slightly. In addition, the shift of beneficiaries toward MA may have also altered the average health needs of the remaining pool of FFS beneficiaries. However, after examining changes in discharges and adjusting for changes in age, we still found a slight increase in inpatient use per FFS beneficiary from 2016 to 2017.

Acute inpatient prospective payment system

Medicare's inpatient prospective payment system (IPPS) pays acute care hospitals a predetermined amount for most

discharges. The payment rate is the product of a base rate and a relative weight that reflects the expected costliness of cases in a particular clinical category compared with the average of all cases. The labor-related portion of the base payment rate is adjusted by a hospital geographic wage index to account for differences in hospital input prices among market areas. Payment rates are updated annually.

To set inpatient payment rates, CMS uses a clinical categorization system called Medicare severity–diagnosis related groups (MS–DRGs). The MS–DRG system classifies each patient case into 1 of 761 groups, which reflect similar principal diagnoses, procedures, and severity levels. The severity levels are determined according to whether patients have a complication or comorbidity (CC) associated with the base MS–DRG (the categories are no CC, a nonmajor CC, or a major CC). A more detailed description of the acute IPPS, including payment adjustments, can be found at http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_hospital_final_v2_sec.pdf?sfvrsn=0.

Hospital outpatient prospective payment system

The outpatient prospective payment system (OPPS) pays hospitals a predetermined amount per service. CMS assigns each outpatient service to 1 of about 700 ambulatory payment classification (APC) groups. Each APC has a cost-based relative weight, and a conversion factor translates these relative weights into dollar payment amounts. In 2014 and 2015, CMS implemented several policies that expanded the size of the OPPS payment bundles so that the OPPS has fewer primary services (also called separately payable services) and more packaged items and services. The most substantive of these policies was the establishment of comprehensive APCs (C–APCs), which combine all of the OPPS-covered services on the same claim into a single payment, including those that would otherwise be separately payable. Since introducing C–APCs in 2015, CMS has increased the number of C–APCs from 25 to 64.

How Medicare sets payment rates

Until 1984, Medicare paid hospitals based on their cost of care. Currently, Medicare pays hospitals rates under a prospective payment system (PPS), meaning rates are set prospectively and largely do not depend on individual hospitals' costs. One rationale for ending payments based on cost was that cost-based payments reduce the incentive for cost control. A second reason is that, as we will show later in this chapter, hospitals with higher costs are often

those under less financial pressure to constrain costs. Therefore, while Medicare continues to adjust payment rates for factors outside of hospitals' control (such as regional wage rates or patient characteristics), Medicare does not pay hospitals more for having high costs relative to neighboring hospitals with similar patients. In addition, Medicare does not pay more to hospitals with low costs because low costs are their own reward in a prospective payment system.

Links between Medicare's hospital payment rates and other payers' payment rates

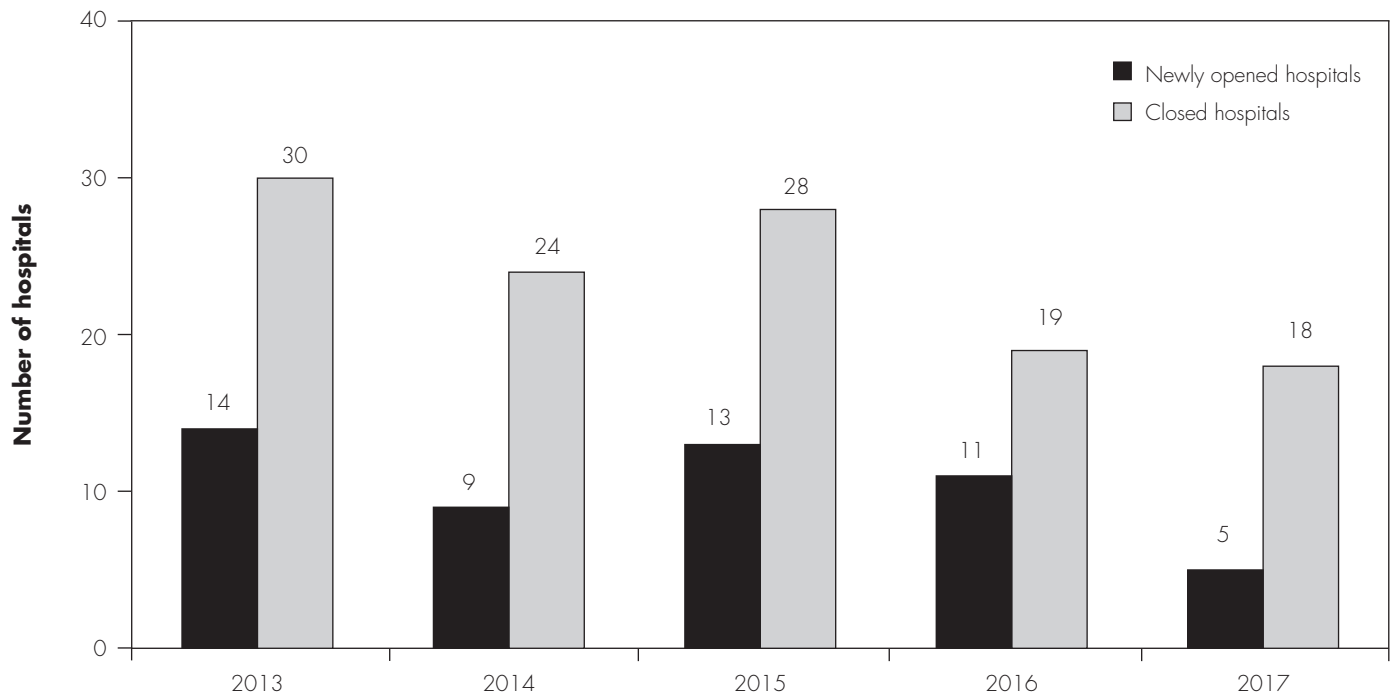
Spending under Medicare's FFS payment system is used to set benchmarks for MA plans and for accountable care organizations (ACOs). More importantly, it is also the foundation of MA plans' payment rates to hospitals. In 2018, 33 percent of Medicare beneficiaries were in MA plans, and most MA plans paid hospitals using rates benchmarked to and almost exactly equal to Medicare FFS rates (Berenson et al. 2015, Maeda and Nelson 2017). In addition, the Department of Veterans Affairs began setting hospital rates equal to Medicare FFS rates in 2012 and annually pays for about \$2 billion of inpatient care at community hospitals (Government Accountability Office 2013). The rates that uninsured individuals pay are also often benchmarked to Medicare due to limits on rates charged to low-income uninsured individuals that were enacted in the Patient Protection and Affordable Care Act of 2010 (PPACA). The Medicaid program also uses Medicare rates when setting maximum supplemental "upper payment limit" Medicaid payments to hospitals (Medicaid and CHIP Payment and Access Commission 2016). Furthermore, Medicare rates can affect rates charged by commercial insurance. Most recently, Montana's state employee health plan fixed its hospital payment rates to 234 percent of Medicare (Appleby 2018). The treasurer of North Carolina has proposed a similar plan for its state employee health plan starting in 2020 (Toscza 2018). Given the growth in the use of Medicare FFS prices as a benchmark, any update to the Medicare base payment amount will affect many other payers.

Are Medicare payments adequate in 2019?

To judge whether payments in 2019 are adequate for relatively efficient hospitals, we examine several indicators of payment adequacy. We consider beneficiaries' access

**FIGURE
3-1**

Hospital closures and openings declined from 2013 to 2017



Source: MedPAC analysis of the CMS Provider of Services file, internet searches, and personal communication with the Department of Health and Human Services Office of Rural Health Policy.

to care, changes in the quality of care, hospitals' access to capital, and the relationship of Medicare's payments to hospitals' costs for both average and relatively efficient hospitals. Most of our payment adequacy indicators for hospitals are positive, but 2017 Medicare margins remained negative for most hospitals and were about -2 percent for relatively efficient providers.

Beneficiaries' access to care remained good; excess inpatient capacity persisted

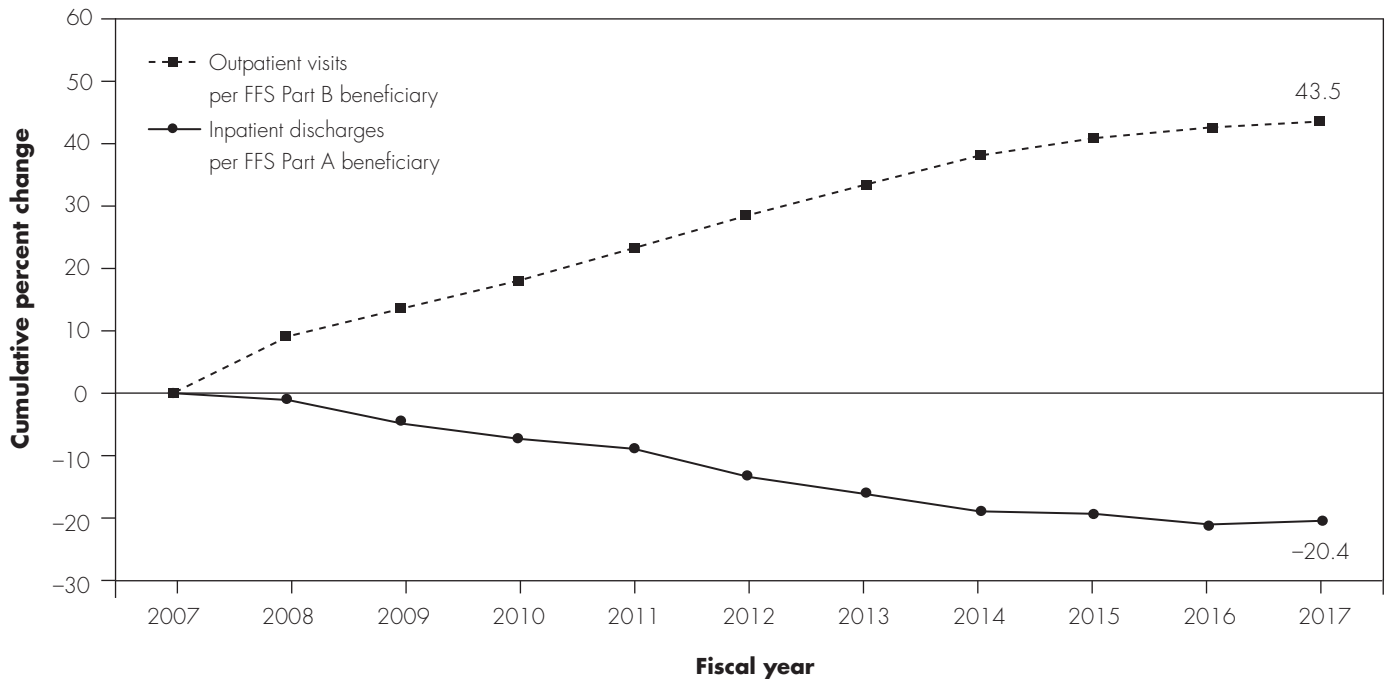
To evaluate access to care, we examine the availability of hospital services to Medicare beneficiaries by analyzing hospital employment growth, hospital closures, occupancy, hospitals' financial incentive to see Medicare patients, and other measures. Our framework also includes an evaluation of hospitals' access to capital, which provides an outlook on the industry's ability to sustain or expand its existing resources. Medicare beneficiaries' access to

hospital services remains good, in part because excess inpatient capacity persists in most markets.

Hospital closures decreased slightly in 2017

While closures are still relatively rare events, there have been slightly more hospital closures than hospital openings in recent years. In 2017, we identified 18 closures and 5 openings (Figure 3-1), a slight decrease from 2016 in both measures. Among those that closed in 2017, 10 were in urban counties and 8 were in rural counties. The hospitals that opened in 2017 were all in urban counties.

From 2015 to 2017, 65 hospitals closed and 29 opened. The hospitals that closed tended to be smaller (81 beds, on average), with low inpatient occupancy rates (22 percent, on average), and poor profitability (all-payer margin of -6 percent, on average) compared with average facilities. Of these closures, 65 percent were in states that did not expand their Medicaid program under PPACA, and 52

**FIGURE
3-2****Medicare inpatient discharges per beneficiary and outpatient visits per beneficiary increased from 2016 to 2017**

Note: FFS (fee-for-service). Data include general and surgical, critical access, and children's hospitals.

Source: MedPAC analysis of CMS's inpatient and outpatient claims and enrollment data.

percent were in rural counties and were, on average, 21 miles from the nearest hospital. Nine of the rural hospitals that closed were critical access hospitals and 11 were designated as Medicare-dependent hospitals. Urban hospitals that closed were an average of nine miles from the nearest hospital. Some hospitals that closed between 2015 and 2017 either converted to outpatient-only facilities (e.g., stand-alone emergency departments or imaging centers) or became post-acute care facilities; others closed completely. The 29 hospitals that opened over this 3-year period were often small (51 beds, on average), and 88 percent were urban. The newly opened hospitals are a mix of small full-service hospitals and small specialty or microhospitals.

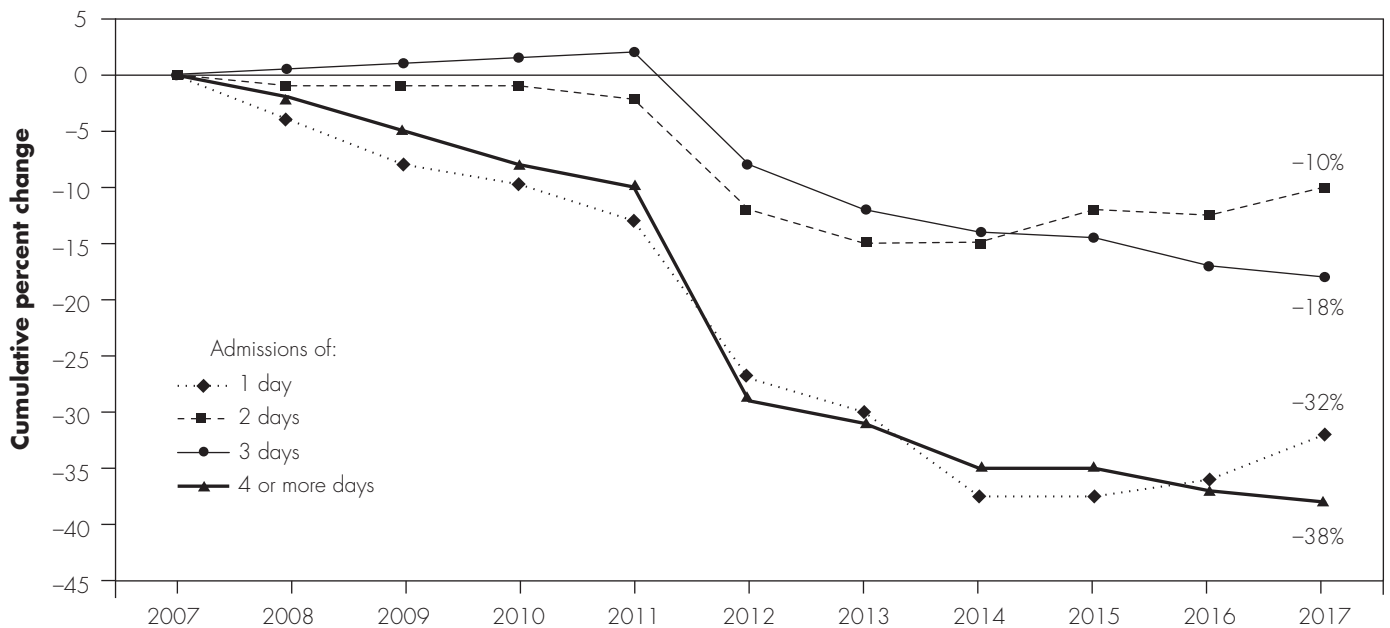
Despite closures, rural and urban hospitals have excess inpatient capacity

Despite some closures, existing hospitals often still have excess capacity. Between 2016 and 2017, aggregate

occupancy rates for hospitals increased slightly from 62.1 percent to 62.5 percent. However, a significant degree of inpatient capacity was still underutilized in 2017, which appeared more significant at rural hospitals. That year, the average occupancy rate of urban hospitals was 65.9 percent, while the average occupancy rate of rural hospitals was 40.2 percent. Over the past decade (2006 to 2017), hospital occupancy rates declined from 63.8 percent to 62.5 percent; this change occurred as the volume of Medicare inpatient admissions declined. Given excess inpatient capacity, some of these hospitals have sought to reduce their inpatient capacity and replace it with outpatient capacity (Barclays 2018, Goldberg 2018, Japsen 2018).

Modest increases in inpatient use

Between 2016 and 2017, inpatient discharges and outpatient visits per beneficiary increased by 0.7 percent. These small increases reflect a discontinuation of

**FIGURE
3-3****The number of short (one- and two-day-stay) Medicare inpatient discharges per beneficiary increased from 2016 to 2017**

Note: Data include general and surgical, critical access, and children's hospitals.

Source: MedPAC analysis of CMS's inpatient claims and enrollment data.

long-term trends where inpatient volume declined and outpatient volume increased rapidly. Despite the leveling of these trends, inpatient use is significantly lower and outpatient use is significantly higher than each was a decade earlier. From 2007 to 2017, inpatient discharges per beneficiary decreased 20.4 percent, while outpatient visits per beneficiary increased 43.5 percent (Figure 3-2).

The volume of Medicare inpatient discharges increased at urban hospitals and decreased at rural hospitals. From 2016 to 2017, Medicare inpatient discharges per beneficiary declined 0.4 percent at rural hospitals and 1.1 percent at small rural hospitals (fewer than 100 beds). By contrast, from 2016 to 2017, inpatient discharges increased 1.1 percent at urban hospitals. Over the past decade, from 2007 to 2017, inpatient discharges have declined across all geographic areas, but almost twice as fast in rural areas (–36 percent) as in urban areas (–17 percent) (data not shown). Moreover, from 2013 to 2017, the share of rural

beneficiaries' admissions occurring in urban hospitals increased from 46 percent to 53 percent.

Increase in inpatient discharges reflects growth in one-day and two-day stays

The slight increase in the volume of inpatient discharges from 2016 to 2017 reflects a 1.9 percent per beneficiary increase in medical cases and a 1.5 percent per beneficiary decrease in surgical cases (data not shown). Both inpatient medical and surgical cases have declined substantially between 2007 and 2017 (–19 percent and –23 percent, respectively).

One reason for the small increase in discharges in 2017 was an increase in inpatient discharges with short stays. Over the decade from 2007 to 2016, short inpatient discharges of one to four days generally declined (Figure 3-3). However, from 2016 to 2017, the volume of inpatient discharges classified as a one-day stay increased 6.6

percent, and the volume of two-day discharges increased 2.5 percent. This increase in short-stay discharges may be attributable to changes in CMS's Recovery Audit Contractor (RAC) program. The RAC program reduced audits of short hospital stays as a part of CMS's RAC program revisions.³

The increase in inpatient one-day cases in 2017 is in large part attributable to five medical and surgical MS-DRGs. Major joint replacements for lower extremities accounted for 51 percent of the increase in one-day discharges, increasing by more than 37,000 discharges since 2016. Other MS-DRGs accounting for a share of the one-day-stay increase include heart failure and shock (15 percent), major joint procedures of the upper extremities (8 percent), chronic obstructive pulmonary disease (7 percent), and septicemia (5 percent).

Growth in outpatient hospital services reflects growth in drug costs and incentives to shift patients to higher cost sites of care

From 2012 to 2017, Medicare spending for hospital outpatient services grew at an annual rate of 8.6 percent. Accounting for this strong growth rate was growth in:

- drug administration and the cost of drugs, especially for the treatment of cancer;
- emergency department visits and observation care;
- clinic visits, likely fueled by hospital acquisition of physician practices and hospital employment of physicians; and
- complex surgical procedures that often involve prosthetics or medical devices and that migrate from the inpatient setting.

Also, from 2013 to 2014, outpatient spending rose substantially (from \$46.5 billion to \$52.5 billion) due, in part, to CMS's decision to include most clinical laboratory tests in the OPPS packaged payment rates, whereas these tests had previously been paid and categorized under the clinical laboratory fee schedule.

Spending on Part B drugs has driven OPPS spending growth The largest source of OPPS spending growth has been Part B drugs, which include drugs that have pass-through status (drugs that are new to the market) and those that are not pass through but are separately payable under the OPPS. From 2012 to 2017, OPPS spending for these drugs increased from \$6.0 billion to \$12.0 billion,

an increase of 99 percent (14.8 percent per year). This rise reflects an increase in outpatient spending on drugs in general and a shift in the payment for the drugs from the physician fee schedule (when administered in a freestanding office) to the OPPS (when administered in the hospital outpatient department (HOPD)).

The growth in combined program spending and cost sharing for drugs has accelerated in recent years (2016 to 2017), increasing 18.2 percent. In that period, growth in spending on pass-through drugs was especially strong, increasing from \$1.3 billion to \$2.3 billion. Even though drug spending has increased under the OPPS, drugs are profitable overall in the outpatient setting because hospitals' revenues exceed their costs for drugs, largely driven by the substantial margins for drugs obtained through the 340B Drug Pricing Program, a federal program that requires drug manufacturers to provide outpatient drugs to certain hospitals at significantly reduced prices.

The growth in spending on Part B drugs reflects both price increases in existing drugs and the introduction of new, expensive cancer drugs. From 2012 to 2017, about 79 percent of the increase in spending on separately payable drugs was for those that treat cancer.⁴ During that period, OPPS spending on cancer drugs increased from \$4.1 billion to \$8.8 billion. While the increased drug spending resulted in an increased burden on taxpayers, it increased hospitals' profits on average in 2017 because of discounts from the 340B Drug Pricing Program. From 2016 to 2017, off-campus provider-based departments (PBDs) had an important impact on the increased OPPS spending on drugs. Drug spending in off-campus PBDs grew 25.5 percent and accounted for nearly 29 percent of the growth in total drug spending in HOPDs. The mix of services provided in off-campus PBDs is somewhat different from the mix of services provided in on-campus HOPDs (see text box on off-campus outpatient departments, pp. 76–77).

Observation and emergency visits increased through 2016 but leveled off in 2017 OPPS spending also has increased substantially for observation care. From 2012 to 2017, OPPS spending for observation care rose 263 percent, attributable to higher volume, updates to OPPS payment rates, and a substantial increase in the ancillary items included in the packaged payment rate for observation care in 2016. While the greater packaging of ancillary items increased spending on observation care, it lowered the spending on the ancillary items that were formerly paid for separately. From 2012 through 2017, the

**TABLE
3-2**

Hospital outpatient departments had strong spending growth for separately payable drugs, observation care, ED visits, clinic visits, and chemotherapy administration, 2012-2017

Service or item	Spending (in billions)		Percent change 2012-2017	Driver of growth
	2012	2017		
Drugs	\$6.0	\$12.0	99%	High-cost drugs, increased volume, shift from physician offices
Observation care	0.9	3.1	263	Larger payment bundle
ED visits	2.4	4.1	72	Larger payment bundle, coding to higher levels
Clinic visits	1.9	3.4	81	Shift from physician offices
Chemotherapy administration	0.4	0.7	84	Shift from physician offices
Total	43.2	65.5	52	

Note: ED (emergency department). Spending includes both program outlays and beneficiary coinsurance. "Drugs" refers to Part B drugs that are separately payable under the outpatient prospective payment system, which includes pass-through drugs and drugs that are separately payable but do not have pass-through status.

Source: MedPAC analysis of 2012 and 2017 hospital outpatient standard analytic claims files and data from the CMS Office of the Actuary.

volume of observation care increased spending by 19.7 percent, while updates to OPPS payment rates increased spending by 5.3 percent. Inclusion of certain ancillary items in the packaged payment rate for observation care was by far the biggest factor in spending on observation care, increasing spending by 188 percent. Growth in the volume of separately payable observation care has slowed. From 2016 to 2017, volume of observation stays fell 1.2 percent, and Medicare spending for these stays rose 1.0 percent.⁵

OPPS spending for emergency department (ED) visits also increased, rising by 72 percent from 2012 to 2017 (Table 3-2). Similar to observation care, a number of factors contributed to the increase in spending on ED visits, including increased volume, updates to the ED payment rates, increased packaging of ancillary items into the ED payment rates, and a shift of ED visits coded at lower acuity levels to higher acuity levels. While the increased packaging of ancillary items increased spending on ED visits, it decreased the spending on the ancillary items that CMS shifted from separately payable to packaged into the payment for ED visits. From 2012 to 2017, growth in the volume of ED visits increased spending by 8.4 percent, and updates to OPPS payment rates increased spending

by 5.3 percent. Increased packaging of ancillary items into ED visits increased OPPS spending by 25.1 percent (and decreased spending on separately payable lab tests). Finally, we have found that a shift in the coding of ED visits from low-acuity levels (which have lower payment rates) to higher acuity levels (which have higher payment rates) increased ED spending by 20.3 percent from 2012 to 2017. Similar to observation care, growth in ED visits has slowed. From 2016 to 2017, volume of ED visits was unchanged and Medicare spending for them increased by 2.0 percent (data not shown).

Shift of services from physician offices to HOPDs has increased OPPS spending Another large source of growth in spending on hospital outpatient services was a shift from (relatively lower cost) physician offices to (relatively higher cost) HOPDs. From 2012 to 2017, spending for and volume of clinic visits and drug administration (especially for chemotherapy drugs) in the hospital outpatient setting rose substantially, while the volume of these services fell in freestanding physician offices. Over this period, the volume of OPPS clinic visits rose 34 percent and chemotherapy administration rose 45 percent. At the same time, the volume of office visits in freestanding offices fell 0.6 percent and chemotherapy administration fell 15.2 percent.

Payments for off-campus outpatient departments

A significant share of hospital outpatient prospective payment system (OPPS) services is provided in off-campus provider-based departments (PBDs). In 2017, about 16.6 percent of OPPS volume and 11.1 percent of OPPS revenue was for services provided in off-campus PBDs. From 2016 to 2017, volume in off-campus PBDs grew 4.8 percent, and spending rose 12.4 percent.

Before 2017, CMS paid for all services provided in off-campus PBDs at the standard OPPS rates. Payments for some services provided in off-campus PBDs changed in 2017. CMS now pays some of these services at the standard OPPS rates but pays for others at rates that are a fraction of the OPPS rates.

Whether a service provided in an off-campus PBD is paid at the standard OPPS rate or at a fraction of the OPPS rate depends on whether the service was provided in an off-campus PBD that is “excepted” from Section 603 of the Bipartisan Budget Act (BBA) of 2015. Section 603 of the BBA of 2015 defines an excepted off-campus PBD as one that was billing under the OPPS before November 2, 2015 (the date the Congress enacted the BBA of 2015). CMS set payments for nonexcepted services as a fraction of the services’ OPPS payment rates, where the average of these payment rates for nonexcepted services approximates the average of the payment rates in the Medicare physician fee schedule. CMS determined that

nonexcepted services provided in off-campus PBDs would be paid at 50 percent of OPPS rates in 2017 and 40 percent of OPPS rates in 2018 and 2019.

On average, the services provided in off-campus PBDs are less complex than the services provided in on-campus outpatient settings. In 2017, the average relative weight of a service (a measure of resources needed to furnish a service) provided in an off-campus PBD was 2.18, compared with 5.00 (2.3 times higher) for the average relative weight of a service provided in an on-campus hospital outpatient department (HOPD). The higher the relative weight, the more complex the service.

We have found sharp differences between the services provided in off-campus PBDs and on-campus HOPDs. In 2017, outpatient clinic visits were by far the most frequently provided service in off-campus PBDs, constituting 46 percent of total Medicare service volume and 18 percent of total Medicare revenue in that setting. In contrast, outpatient clinic visits were only 14 percent of total Medicare volume and 4 percent of total Medicare revenue in on-campus HOPDs. Also, separately payable drugs were a much larger share of Medicare revenue in off-campus PBDs than in on-campus HOPDs—40 percent of off-campus PBD revenue compared with 18.5 percent of on-campus HOPD revenue. Finally, in 2017, the 10 ambulatory payment classifications (APCs) that had the highest

(continued next page)

Increased spending on clinic visits and chemotherapy administration in HOPDs reflects the growth in volume in HOPDs. From 2012 to 2017, spending grew 81 percent for clinic visits and 84 percent for chemotherapy administration. Most recently, from 2016 to 2017, volume of clinic visits grew 3.2 percent in HOPDs and Medicare spending rose by 6.0 percent. Volume of chemotherapy administration grew 5.6 percent, and Medicare spending rose 3.0 percent. In contrast, volume of office visits and chemotherapy administration provided in freestanding offices dropped 1.4 percent and 5.2 percent, respectively.

Spending on chemotherapy administration grew more slowly than volume in HOPDs from 2016 to 2017 because CMS restructured the APCs for chemotherapy, which lowered the OPPS payment rates for some of the chemotherapy techniques that are provided most frequently.

The shift of clinic visits and chemotherapy administration from physician offices to HOPDs is important because it increases Medicare program spending and beneficiary cost-sharing liability. Medicare payment rates for the same or similar services are generally higher in HOPDs than in

Payments for off-campus outpatient departments (cont.)

Medicare revenue in off-campus PBDs were different from the 10 APCs that had the highest Medicare revenue in on-campus HOPDs (Table 3-3).

Notably, the vast majority of services provided in off-campus PBDs in 2017 were in those with “excepted” status and thus paid at full OPPS payment rates. About 94 percent of the overall Medicare volume and Medicare revenue in off-campus PBDs occurred

in excepted facilities. Therefore, the lower Medicare payment rates for services provided in nonexcepted off-campus PBDs did not have much effect on reducing Medicare spending. However, CMS has decided to expand the extent to which it pays for services provided in off-campus PBDs at the reduced rates currently paid in nonexcepted PBDs: CMS will pay all clinic visits provided in excepted off-campus PBDs at the reduced rates starting in 2020. ■

**TABLE
3-3**

Services with the highest OPPS revenue in off-campus PBDs and on-campus HOPDs

Off-campus PBDs		On-campus HOPDs	
APC	Share of OPPS revenue	APC	Share of OPPS revenue
Clinic visits	18.0%	Observation services	6.0%
Level 4 drug administration	2.5	Clinic visits	4.4
Level 4 imaging without contrast	2.2	Level 3 endovascular procedures	3.6
Level 3 radiation therapy	2.2	Level 4 ED visits	3.1
Level 3 nuclear medicine	2.1	Level 5 ED visits	2.9
Level 2 imaging without contrast	2.0	Level 2 ICD procedures	2.5
Level 3 imaging without contrast	1.6	Level 3 drug administration	2.1
Level 1 intraocular procedures	1.3	Level 4 musculoskeletal procedures	2.0
Level 4 nuclear medicine	1.2	Level 1 endovascular procedures	2.0
Level 2 skin procedures	1.2	Level 3 electrophysiologic procedures	1.9

Note: OPPS (outpatient prospective payment system), PBD (provider-based department), HOPD (hospital outpatient department), APC (ambulatory payment classification), ED (emergency department), ICD (implantable cardioverter defibrillator).

Source: MedPAC analysis of hospital outpatient standard analytic claims files from 2017.

freestanding offices. For example, we estimate that the Medicare program spent \$1.9 billion more in 2017 than it would have if payment rates for clinic visits in HOPDs were the same as physician office rates. As a corollary, beneficiaries’ cost sharing was \$480 million more in 2017 than it would have been under physician office rates because of the higher rates paid in HOPDs. However, Section 603 of the Bipartisan Budget Act (BBA) of 2015 has begun to have a small effect on the differences in payments between HOPDs and physician offices for clinic visits. Under provisions in the BBA of 2015,

CMS has implemented lower OPPS payment rates for services provided in some hospitals’ off-campus PBDs. CMS intends for the lower OPPS rates to equal rates paid in physician offices under the Medicare physician fee schedule, on average. For 2017 and 2018, the effects of this policy were limited and had a small effect on spending under the OPPS (see text box). However, CMS decided to expand this policy substantially for 2019, and the likely effect will be a substantial reduction in OPPS spending for clinic visits.

**TABLE
3-4****Trends in unadjusted and risk-adjusted rates of readmissions across all conditions**

Type of readmission	2012	2013	2014	2015	2016	2017
Unadjusted unplanned readmissions	16.4%	15.9%	15.6%	15.8%	15.5%	15.8%
Risk-adjusted unplanned readmissions	16.3	15.7	15.3	15.2	15.0	15.0

Note: The readmissions for 2017 reflect admissions during the first 11 months of fiscal year 2017 and readmissions after those admissions during the full 12 months of fiscal year 2017.

Source: MedPAC analysis of Medicare claims files for Medicare fee-for-service beneficiaries ages 65 or older.

Shift of some services from the inpatient to the outpatient setting has increased OPPS spending

Growth in relatively complex services—such as spinal surgeries; endovascular procedures; and removal, replacement, or insertion of defibrillator systems or pulse generators—suggests that some of the growth in OPPS spending is from services migrating from the inpatient to the outpatient setting. For example, from 2012 to 2017, spending on the services in APC 5464 (level 4 neurostimulator and related procedures) increased 131 percent and from 2016 to 2017, by 22.4 percent.

Hospitals with excess capacity have a financial incentive to serve Medicare beneficiaries

Another measure of access is whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. This measure examines whether Medicare payments cover the variable cost of treating an additional Medicare patient, meaning the costs that vary with volume. On average, the marginal profit across hospital service lines was approximately 8 percent in 2017.⁶ Because hospitals would be expected to generate about 8 percent profit on a marginal increase in Medicare volume, hospitals with excess capacity have a financial incentive to serve more Medicare beneficiaries.

Quality of care improved

The quality of hospital care improved in recent years, and at least part of this improvement appears to be due to various financial incentives included in recent years in the Medicare program. Although these incentive programs could be improved, the data suggest that even imperfect incentives can lead to improved quality. In Chapter 15 of this report, we discuss a redesign of Medicare's hospital quality payment programs into a single hospital value

incentive program (HVIP) that will be simpler and will produce more equitable results compared with existing quality payment programs.

In 2019, hospitals' performance on quality metrics has the potential to increase a hospital's base IPPS payment rates by as much as 3 percent and lower payments by as much as about 5.5 percent. Three payment adjustments are responsible for these potential changes: the Hospital Readmission Reduction Program (HRRP) (which can reduce payments up to 3.0 percent), the HVIP (between about a 3.0 percent increase and a 1.5 percent reduction to payments), and the Hospital-Acquired Condition Reduction Program (which can reduce payments 1.0 percent for 25 percent of hospitals). (These programs do not apply to outpatient payments.) In 2018, almost a quarter of hospitals will see a net increase in payments (averaging about \$98,000) and a little less than three-quarters will see a net decrease in payments (averaging about \$456,000) under the combined effect of these programs. On net, these three programs lower Medicare payments by about \$970 million, equivalent to about 0.8 percent of Medicare's inpatient payments or 0.5 percent of Medicare's total hospital payments.

Key measures of quality demonstrate improvement

To assess aggregate trends in quality of care across all IPPS hospitals, we use mortality rates, readmission rates, and patient experience measures. From 2012 to 2017, mortality rates, readmission rates, and patient experience measures (e.g., communication with nurses and doctors, quietness of hospital environment) have improved. The share of patients rating their overall hospital experience a 9 or 10 on a 10-point scale has increased from 71 percent to 73 percent.

**TABLE
3-5****Risk-adjusted 30-day postdischarge mortality rates have declined**

Mortality rate	2012	2013	2014	2015	2016	2017
Unadjusted mortality	8.1%	8.4%	8.4%	8.6%	8.4%	8.4%
Expected mortality	8.5	9.1	9.4	9.9	10.2	10.7
Risk-adjusted mortality	7.7	7.5	7.2	7.0	6.7	6.4

Source: MedPAC analysis of 2012 through 2017 Medicare claims using 3M all-patient refined–diagnosis related group risk of mortality V32 grouper and beneficiary age and gender to calculate risk-adjusted mortality rates (using 2010 through 2012 data to set expected rates).

Readmission rates improved The Congress enacted the HRRP in 2010, and since that time, readmission rates have fallen. In our recent analysis of the HRRP, we found that the program gave hospitals an incentive to reduce inappropriate readmissions (Medicare Payment Advisory Commission 2018). Our updated analysis of readmission rates across all conditions for beneficiaries over age 65 found that between 2012 and 2017, the raw unplanned readmission rate declined by 0.6 percentage point, from 16.4 percent to 15.8 percent (Table 3-4). Once risk adjusted, these rates declined from 16.3 percent to 15.0 percent. An in-depth discussion of changes in readmission rates is available in our June 2018 report to the Congress.

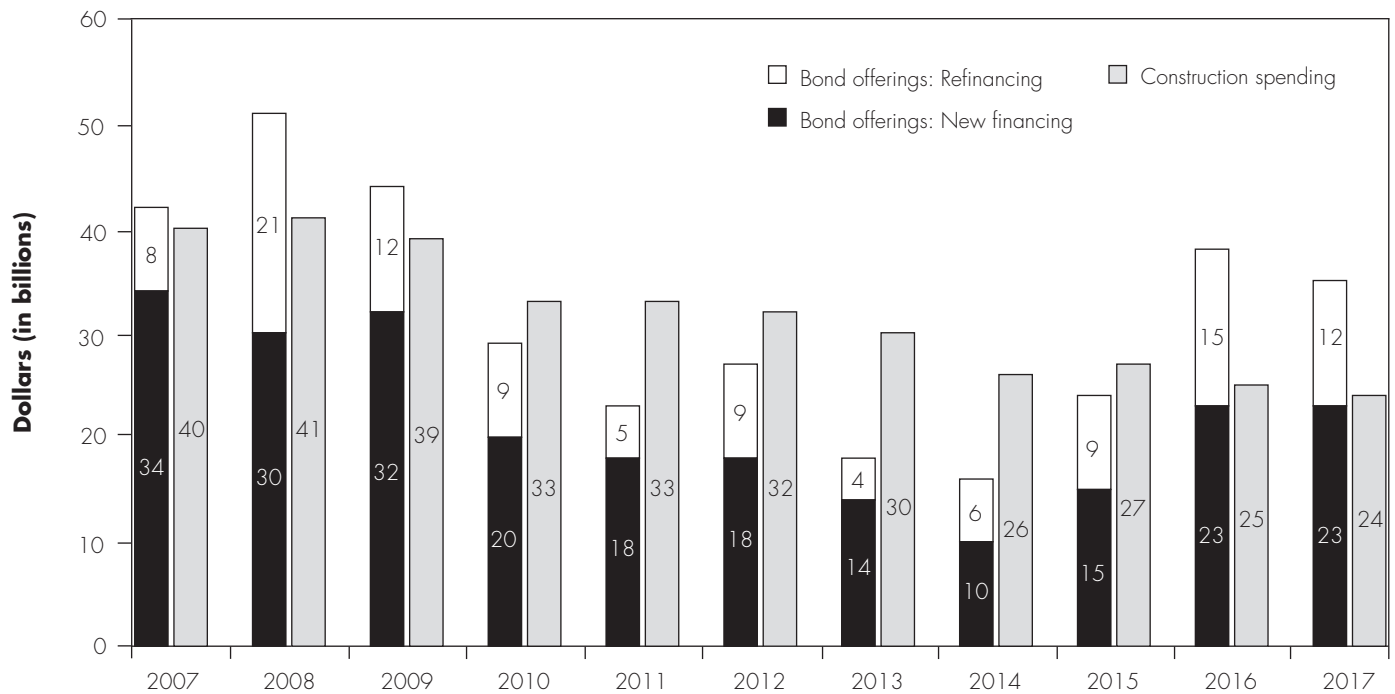
In 2013, the Commission proposed a budget-neutral package of improvements to the HRRP. The first proposal was to set a fixed target for readmission rates so aggregate penalties would drop when industry performance improved. Second, we discussed changing the penalty formula to make the penalty per excess readmission close to the cost of each excess readmission. Third, to create greater precision in measuring relative performance and offset the cost of changing the penalty formula, we discussed expanding the policy to cover all conditions.⁷ Fourth, we proposed evaluating hospitals' readmission rates against rates for peer hospitals with similar shares of low-income patients as a way to adjust penalties for the effects of socioeconomic status on hospitals' readmission rates (Medicare Payment Advisory Commission 2013), which the Congress adopted in the 21st Century Cures Act (Public Law 114–255). Aspects of these proposals are incorporated in the HVIP design.

Mortality rates improving From 2013 to 2017, risk-adjusted mortality rates declined by 1.1 percentage

points, including a decline of 0.3 percentage points in 2017 (Table 3-5). Over the five-year period, raw mortality rates were relatively constant, but expected mortality increased, which suggests that beneficiaries admitted in recent years tended to have more comorbidities and thus a higher risk of mortality. Other studies have found similar improvements for condition-specific mortality (Hines 2015, Krumholz 2015). The combination of a decline in readmissions and a decline in hospital mortality is evidence of steadily improving quality.

Hospitals' access to capital remained strong in 2017

In 2017, hospitals' access to capital remained strong. Nonprofit hospitals issued \$35 billion in bonds, roughly equivalent to the \$38 billion of bond offerings issued in 2016 (Figure 3-4, p. 80) (Thomson Reuters 2018). Both years reflect higher bond issuance levels than any year since 2009. The 2017 bond issuances consisted of \$23 billion in new financing and \$12 billion in refinancing of existing debt. Between November 2017 and November 2018, the average interest rate for double-A tax-exempt 30-year nonprofit hospital bonds increased from 3.2 percent to 3.92 percent (Cain Brothers 2018). Hospital construction spending was \$24 billion, about the same level as 2016 and roughly equivalent to the level of bond issuances for new financing (Census Bureau 2018). Construction spending for hospitals in 2017 was the lowest in over a decade because the industry is focused on building less expensive outpatient capacity rather than inpatient capacity (Conn 2017). Several financial ratings agencies consistently observed increases in hospitals' capital expenditures from 2016 to 2018 but note the current focus of hospitals on building outpatient capacity, such as outpatient surgical

**FIGURE
3-4****Nonprofit hospital bond offerings for new financing
roughly equal to hospital construction spending in 2017**

Source: Nonprofit hospitals' bond offering data from Thomson Reuters and hospital construction spending data from the U.S. Census Bureau.

facilities and other outpatient access points (Barclays 2018, Moody's Investors Service 2018).

Mergers and acquisitions

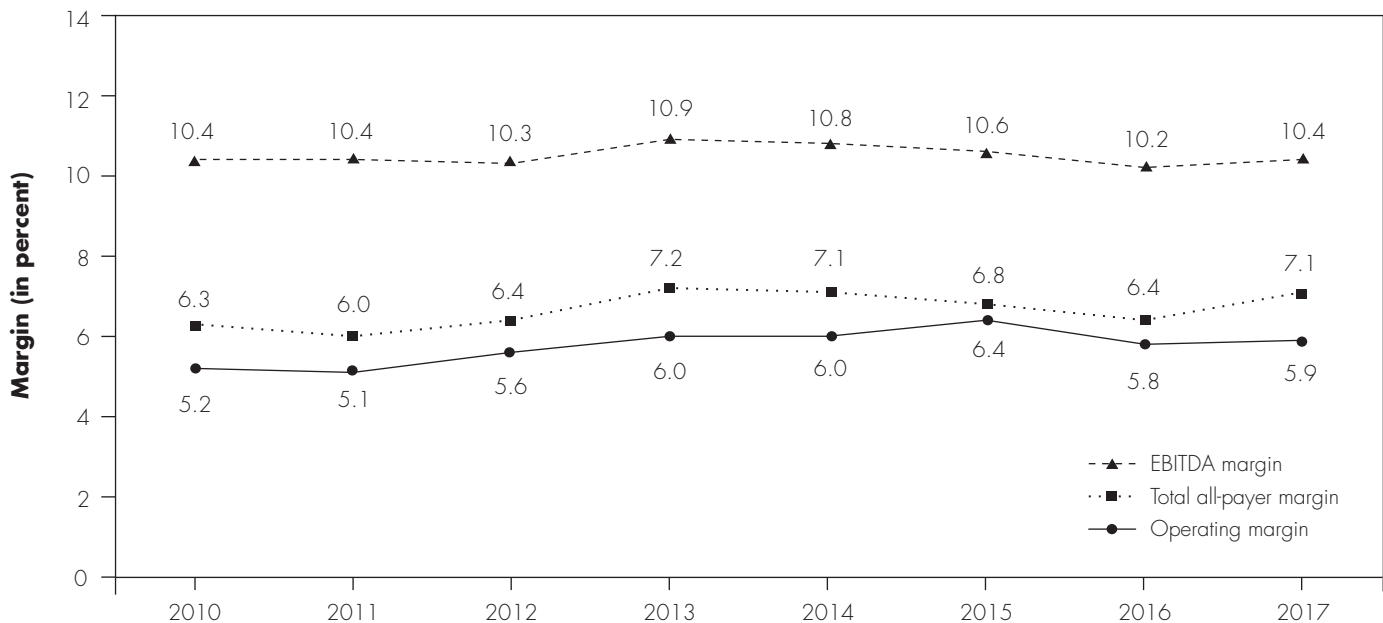
Hospitals and hospital systems continued to expand through acquisition. In 2017, 216 individual hospitals were acquired in 78 transactions, a decline from 2015 and 2016, when 267 and 241 hospitals, respectively, were acquired (Irving Levin Associates Inc. 2018). In 2017, hospital acquisitions tended to be slightly larger hospitals than in previous years, and a larger share of the transactions involved single facilities (71 percent) rather than systems of hospitals. In addition, the 2017 acquisitions tended to occur across regions rather than in the same market. These acquisitions have resulted in greater market power for hospitals, in both the individual market and regional context, in negotiating contracts with insurers, physicians, and drug and device manufacturers. Not included in the information above is the more recent acquisition of LifePoint Health Inc., a for-profit hospital system,

consisting largely of rural hospitals, by Apollo Global management for \$5.6 billion (Reed 2018). This acquisition suggests that some rural hospitals remain an attractive investment, despite years of declining rural inpatient volume.

Hospital employment increased

Between October 2015 and October 2018, the number of individuals employed by hospitals grew from 4.9 million to 5.2 million, an increase of 5.6 percent, slower than in the rest of the health care sector (6.8 percent), but faster than the rest of the economy (4.8 percent) (Bureau of Labor Statistics 2018b). Over 10 years (2008 to 2018), hospital employment increased 12.0 percent while employment in the rest of the economy increased 8.7 percent.

Hospitals have hired individuals in certain high-skill occupational categories and reduced the number of staff in certain lower-skilled occupations. From 2015 to 2017, the

**FIGURE
3-5****Hospitals' all-payer financial performance has remained stable since 2010**

Note: EBITDA (earnings before interest, taxes, depreciation, and amortization). A margin is calculated as revenues minus costs, divided by payments. Analysis excludes critical access hospitals.

Source: MedPAC analysis of Medicare hospital cost report data.

number of physicians employed by hospitals increased 5.3 percent but varied by type of physician (Bureau of Labor Statistics 2018a). Overall, the number of registered nurses employed by hospitals rose 6.2 percent during this period, increasing by roughly 100,000 individuals. Hospitals also increased the number of physician assistants hired by nearly 20 percent and pharmacists by 9 percent.

Total (all-payer) profitability remains strong

Hospitals' access to capital for expansions and acquisitions is largely dependent on their total (all-payer) profitability. All-payer margins remain strong because the growth of private payer rates continues to rise faster than costs (Health Care Cost Institute 2018). While Medicare represents about one-third of all-payer revenues and 44 percent of all admissions, commercially insured patients represent more than 40 percent of patient revenues and generate almost all of the operating profits for a typical hospital.⁸ Operating margins (which exclude investment income) peaked in 2015 at 6.4 percent after a growth in

insured patients. In 2017, total margins (which include investment income) were 7.1 percent, near an all-time high (Figure 3-5). Other measures of all-payer profitability are also strong. Cash flow—as measured by earnings before interest, taxes, depreciation, and amortization (EBITDA)—has remained steady and strong for the past eight years, between 10 percent and 11 percent. Financial ratings agencies consistently reported in 2018 that for-profit and nonprofit financial balance sheets (which include measures such as EBITDA, days cash on hand, and debt load) were at historically high levels for the industry (Barclays 2018, Fitch Ratings 2018, Moody's Investors Service 2018, S&P Global Ratings 2018).

In 2017, total margins varied across hospital types. For the 10th year in a row, for-profit hospitals had a higher total (all-payer) margin compared with nonprofit hospitals, totaling 10.8 percent, almost 5 percentage points higher than in 2007. In addition, the frontier IPPS hospitals (those in low population-density counties) had an average total

margin of 10.1 percent, 3 percentage points higher than in other IPPS hospitals, which suggests that isolated hospitals can do well financially in frontier areas when they have sufficient volumes of insured individuals. While overall profitability was relatively high, margins on Medicare patients remained negative.

Medicare payments and providers' costs

In assessing payment adequacy, the Commission also considers the relationship between Medicare payments and the costs of providing care to Medicare patients. We assess the adequacy of Medicare payments for the hospital as a whole (across all Medicare services), thus measuring the relationship between payments and costs using an overall Medicare margin. This margin includes all Medicare payments and all Medicare-allowable costs for the six largest hospital departments covered by the inpatient, outpatient, and post-acute PPS systems as well as uncompensated care payments and graduate medical education payments and costs.⁹

We report the overall Medicare margin across service lines because no hospital service line is a purely independent business. For example, we find that operating any in-hospital post-acute care (PAC) provider improves the profitability of acute inpatient care services because such a provider allows a hospital to safely discharge patients sooner from their acute care beds, thus reducing the cost of the inpatient stay. The overall Medicare margin also takes into account revenues that are not included in the service-line payments for inpatient and outpatient care. These revenues include Medicare payments for uncompensated care beginning in fiscal year 2014.¹⁰ Excluding these Medicare revenues would understate Medicare payments to hospitals. Another benefit of focusing on overall Medicare margins is that we can avoid the challenges of precisely allocating overhead and administrative costs among the different service lines.

Medicare payment growth

Changes in Medicare inpatient hospital payments per discharge under the IPPS depend primarily on three factors: (1) annual updates to base payment rates; (2) changes in reported patient case mix (i.e., a measure of relative patient complexity); and (3) policy changes that are not implemented in a budget-neutral manner. In 2017, the average Medicare inpatient payment per case increased 2.0 percent and uncompensated care payments declined because of an increase in the number of insured patients.

Between 2016 and 2017, three key changes to inpatient payments occurred:

- a 1.0 percent increase in base payment rates (consisting of a 1.65 percent update, adjustments for documentation and coding, and other changes);
- a 0.6 percent increase in inpatient case mix; and
- a \$0.4 billion reduction in disproportionate share (DSH) hospital and uncompensated care payments.

Medicare continues to see growth in the use of outpatient services. Growth resulted from a combination of factors: a rise in the number of beneficiaries, a rise in outpatient visits per beneficiary, and 19 percent growth in payments for separately payable Part B drugs administered in hospitals' outpatient departments.

Growth in Part B drug spending improved hospital profitability

The 19 percent increase in Part B drug spending was a result of new drugs coming on the market, increases in volumes of Part B drugs used, a shift in the site of administration toward hospitals or hospital-owned practices, and increases in Part B drug prices. Because hospitals and the Medicare program do not set pharmaceutical prices, manufacturer price increases for Part B drugs can also drive up Medicare program payments.

However, as the volume and price of Part B drugs increased from 2016 to 2017, hospital profits on these drugs also increased. In 2017, Medicare paid hospitals 106 percent of pharmaceutical companies' average sales prices for most Part B drugs. Over 50 percent of hospitals' Part B drug administration takes place at hospitals under the 340B Drug Pricing Program, which mandates that pharmaceutical companies provide substantial discounts to certain hospitals. These discounts resulted in 340B hospitals often having drug acquisition costs that were 30 percent or more below the average sales price (and thus below the 2017 payments from the Medicare program) (Government Accountability Office 2015). This difference between the Medicare price paid for drugs and the hospitals' acquisition cost of drugs allowed many hospitals to generate substantial profits on Part B drugs, which contributed to hospitals' profit margin on outpatient services increasing between 2016 and 2017 from -15.3 percent to -14.2 percent. The increasing profit on Part B drugs offset part of hospitals' losses on other outpatient services. Starting in 2018, CMS reduced payments to 340B hospitals for many Part B drugs (other than new

**TABLE
3-6****Cost growth, case-mix change, and hospital input price inflation, 2013-2017**

Cost measure	Annual cost growth					Average annual cost growth 2013-2017
	2013	2014	2015	2016	2017	
Inpatient costs per discharge	2.6%	2.3%	2.3%	4.0%	1.8%	2.6%
Inpatient case-mix-index change	2.0	2.0	0.8	3.4	0.6	1.8
Input price inflation	1.9	1.8	1.7	1.6	2.4	1.9

Note: Cost-growth numbers are not adjusted for reported changes in case mix. Analysis excludes critical access hospitals and Maryland hospitals. "Input price inflation" reflects a four-quarter moving and weighted average of changes in the hospital operating and capital market basket indexes calculated for the second quarter of each year.

Source: MedPAC analysis of Medicare cost reports, claims files, and hospital input price inflation estimates from CMS.

pass-through drugs) to 22.5 percent below the average sales price to more closely align Medicare payments with how much these hospitals pay to acquire drugs. At the same time, CMS enacted an offsetting increase in payment rates for other services. The net result is that while we expect to find that hospital profits on Part B drugs declined from 2017 to 2018, profit margins on other services likely increased, resulting in no material effect on hospitals' overall outpatient margins.

Rate of cost growth remains close to rate of input price inflation

Hospitals' per case cost increases were relatively low from 2013 to 2015. Then in 2016, costs per discharge increased by about 4.0 percent, in large part reflecting an unusual one-year shift in services toward inpatient surgeries, which have a higher case mix (Table 3-6). However, in 2017, the per case cost increased by 1.8 percent, lower than at any other point in the last two decades, reflecting low underlying cost growth and more case mix changes.

The lower underlying cost growth in 2017 is a result of several factors, including shorter lengths of stay and lower input price inflation for hospitals, reflecting low economy-wide inflation and slow wage growth. Hospitals benefited from this slow wage growth, with compensation costs for hospital workers growing by less than 2 percent per year from 2013 through 2015 (Bureau of Labor Statistics 2016). From 2016 through 2017, compensation costs for hospital workers grew 4.4 percent, slower than that of the

rest of the labor market (4.8 percent) (Bureau of Labor Statistics 2017).

From 2016 to 2017, the reported resource needs across all inpatient cases (or case-mix index (CMI)) increased 0.6 percent. This increase in overall CMI was the result of increases in CMI for both medical cases and surgical cases. However, medical cases, which have a lower average case mix than surgical cases, increased as a share of all cases, and this increase moderated the case-mix growth.

The modest 1.8 percent increase in costs per inpatient discharge reflects a modest growth in routine costs (e.g., nursing labor) and ancillary services. Ancillary services made up about half of inpatient cost growth, with the largest share of growth from implantable devices, which reflects 10 percent of total hospital costs and grew by 5 percent from 2016 to 2017 (Table 3-7, p. 84). The higher cost of implantable devices reflects, in part, the increase in joint replacement surgeries.

In contrast to the 2014 to 2016 time frame, when drug costs per discharge rose by an average of 6 percent per year, drug costs per discharge did not materially increase from 2016 to 2017. We did not include a separate estimate of drug costs per discharge in Table 3-7 because such estimates from year to year are imprecise due to two unique factors in pharmacy cost accounting. First, 340B discounts apply to outpatient drugs but not inpatient drugs, which can result in biasing downward the cost of inpatient

**TABLE
3-7****Change in cost per inpatient discharge from 2016 to 2017**

Cost category	2016 and 2017 inpatient costs per discharge and change in cost (in dollars)	Percent change 2016–2017	Share of total Medicare costs 2017
2016 inpatient cost per discharge	\$13,377		
Categories comprising growth in inpatient costs per discharge from 2016 to 2017			
Routine (e.g., room, nursing)	\$87	2%	33%
Special care (e.g., intensive care)	21	1	11
Ancillary	119	2	56
Operating room	14	1	8
Cardiac catheterization	7	4	1
Medical supplies	11	1	6
Implantable devices	60	5	10
Dialysis	6	6	1
Emergency	13	4	3
Observation	5	6	1
All other	4	0	27
2017 inpatient cost per discharge	\$13,605		

Note: Analysis excludes critical access hospitals and Maryland hospitals. Data are based on a cohort of hospitals included in the margin analysis from 2015 through 2017. Components may not sum to totals due to rounding.

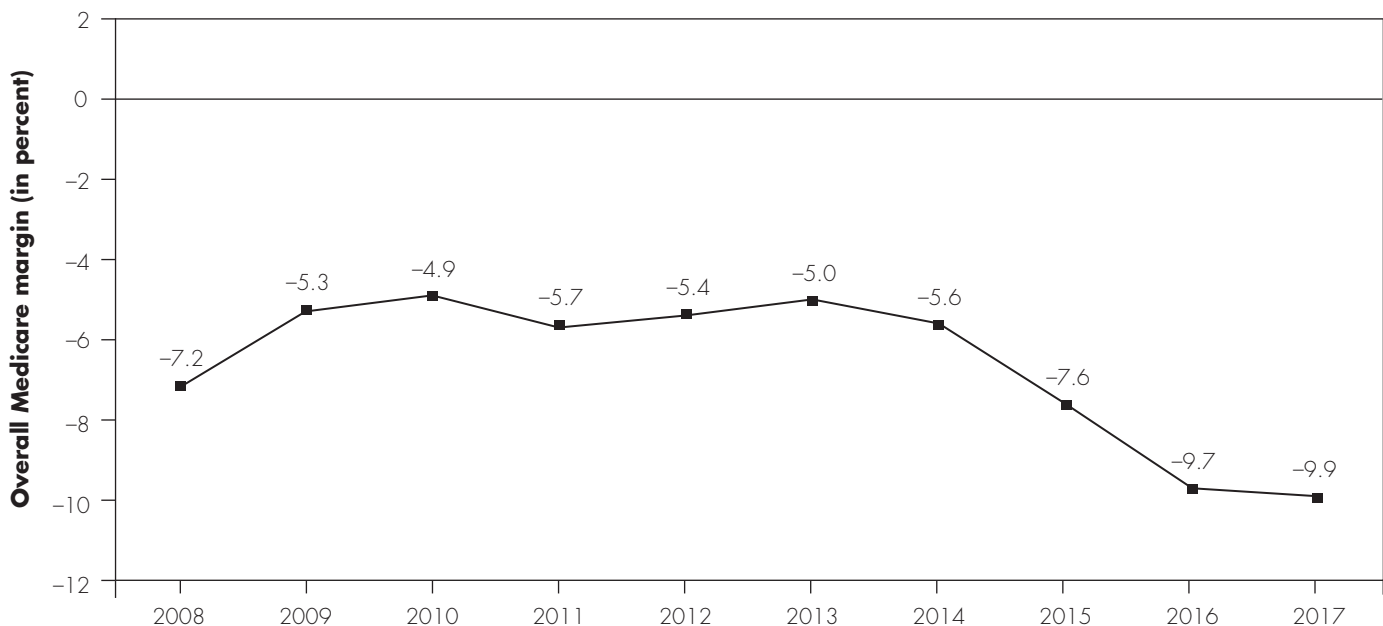
Source: MedPAC analysis of Medicare cost reports.

drugs by reducing the cost-to-charge ratio for all drugs in the hospitals' cost centers for pharmacy. Second, markups differ among drugs. Although the markup percentage is smaller on high-cost drugs, the expansion of new high-cost Part B drugs could cause an increase in the cost-to-charge ratio for the pharmacy cost center and cause an upward bias in cost estimates for inpatient drugs. It is not clear the degree to which the two potential biases offset each other. Given these limitations, we also examined changes in raw charges per inpatient discharge. From 2016 to 2017, charges for inpatient drugs per discharge increased by less than 2 percent. Coupled with the slight decline in hospitals' pharmacy cost-to-charge ratio, pharmacy costs per discharge may have risen less than 2 percent or even declined. The lack of cost growth in the inpatient setting is in stark contrast to the outpatient sector, where charges for drugs increased over 20 percent and combined program

spending and cost sharing increased 18.2 percent. Growth in outpatient spending was for cancer drugs administered on an outpatient basis.

Trend in the overall Medicare margin

We define Medicare margins as Medicare payments minus the allowable costs of treating Medicare patients divided by Medicare payments. In analyzing hospital margins, we compute an overall (aggregate) margin with and without critical access hospitals (CAHs), which are 1,300 rural hospitals whose payments are based on their incurred costs. We also exclude hospitals in Maryland, which are excluded from the IPPS and paid under a statewide all-payer prospective payment system. From 2009 to 2014, the overall Medicare margin held relatively steady, varying from –4.9 to –5.7 percent (Figure 3-6).¹¹ From 2014 to 2016, the Medicare margin dropped from –5.6 percent

**FIGURE
3-6****Overall Medicare margin dropped slightly from 2016 to 2017**

Note: A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. Analysis excludes critical access hospitals and Maryland hospitals. Medicare inpatient margins include services covered by the acute inpatient prospective payment systems. "Overall Medicare margin" covers acute inpatient, outpatient, hospital-based skilled nursing facility (including swing beds), hospital-based home health, and inpatient psychiatric and rehabilitation services, plus graduate medical education and electronic health record incentive payments and payments for uncompensated care.

Source: MedPAC analysis of Medicare cost reports from CMS.

to -9.7 percent. This decline was not unexpected given several payment adjustments required by statute, including reductions to the annual payment update, adjustments for documentation and coding improvement, decreases in incentive payments for the adoption of electronic health records, and decreases in uncompensated care payments that correspond with increases in the insured population. From 2016 to 2017, the overall Medicare margin again dropped, albeit at a lower rate than in prior years, from -9.7 percent to -9.9 percent. The tempered reduction in margin was primarily due to historically low cost growth from 2016 to 2017, coupled with increased revenue from Part B drugs.

Medicare margins by hospital type, 2017

In 2017, rural IPPS hospitals (excluding CAHs) had a -8.2 percent overall Medicare margin, which was 1.8 percentage points higher than the -10.0 percent margin

for urban hospitals (Table 3-8, p. 86). Major teaching hospitals (i.e., hospitals with a high resident-to-bed ratio) had a Medicare margin of -9.0 percent. Major teaching hospitals had higher Medicare margins than the average IPPS hospital in large part because of the extra payments they receive through the indirect medical education and DSH adjustments and uncompensated care payments.

In 2017, for-profit hospitals had the highest Medicare margins (-2.6 percent), well above the -11.0 percent Medicare margin for nonprofit hospitals (Table 3-8, p. 86). Much of this differential reflects lower outpatient costs at for-profit hospitals. In 2017, hospitals that treated the highest shares of low-income patients (high-DSH hospitals) had a -8.1 percent Medicare margin. In contrast, hospitals treating the lowest share of low-income patients (non-DSH hospitals) had the lowest Medicare margins (-16.4 percent). The difference in margins was attributable

**TABLE
3-8**

Overall Medicare margins by hospital type

Hospital group	2010	2011	2012	2013	2014	2015	2016	2017
All hospitals (excluding CAHs)	-4.9%	-5.7%	-5.4%	-5.0%	-5.6%	-7.6%	-9.7%	-9.9%
Urban	-5.1	-6.0	-5.9	-5.9	-5.8	-7.9	-9.9	-10.0
Rural								
Excluding CAHs	-2.6	-2.6	-1.0	2.7	-3.5	-4.9	-7.5	-8.2
Including CAHs	-1.7	-1.4	0.3	2.7	-1.9	-3.2	-5.4	-5.9
Nonprofit	-6.2	-7.1	-7.0	-6.5	-7.1	-9.1	-11.1	-11.0
For profit	-0.1	-0.3	1.0	1.2	0.8	-1.3	-2.1	-2.6
Major teaching	-0.8	-2.1	-2.8	-3.5	-3.7	-6.3	-8.5	-9.0
Other teaching	-4.6	-5.4	-5.0	-4.8	-5.0	-6.3	-8.6	-8.2
Nonteaching	-8.1	-8.6	-7.9	-6.5	-7.7	-9.9	-11.7	-12.2
High DSH	0.2	-1.5	-1.3	-1.5	-2.3	-4.6	-7.2	-8.1
Moderate-to-low DSH	-6.6	-7.0	-6.7	-6.0	-6.4	-8.1	-10.0	-9.9
No DSH	-12.9	-13.5	-13.4	-12.5	-13.3	-15.3	-15.7	-16.4

Note: CAH (critical access hospital), DSH (disproportionate share). Data are for all hospitals covered by the Medicare acute inpatient prospective payment system in 2017 and for CAHs where indicated. A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. "Overall Medicare margins" covers acute inpatient, outpatient, hospital-based skilled nursing facility (including swing beds), hospital-based home health, and inpatient psychiatric and rehabilitation services, plus uncompensated care, graduate medical education, and electronic health record incentive payments. The rural margins are shown with and without 1,300 CAHs, which are paid 101 percent of costs for inpatient and outpatient services. The margins without CAHs illustrate the profitability of rural inpatient prospective payment system hospitals; the rural margins with CAHs give a fuller picture of rural hospital profitability. "High DSH" includes hospitals with the highest disproportionate share adjustments (top quartile). "Moderate-to-low DSH" includes hospitals with disproportionate share adjustments that exceed zero but are not included in the top quartile.

Source: MedPAC analysis of Medicare cost reports, Medicare Provider Analysis and Review files, and impact files from CMS.

in part to the DSH adjustments and uncompensated care payments received by hospitals. In addition, hospitals with high shares of Medicare and Medicaid patients tend to have more pressure to control costs and therefore tend to have lower costs per discharge.

Fiscal pressure constrains costs

Hospitals under financial pressure tend to have lower costs. To illustrate this tendency, we compare hospitals under low and high financial pressure in the analysis below. In addition to financial pressure affecting the level of costs, the literature shows that changes in Medicare rates can affect the rate of cost growth. Hospitals that receive larger increases in Medicare payment rates tend to have larger increases in costs. To determine the association between financial pressure and costs, we grouped hospitals into three levels of financial pressure

from private payers: high, medium, and low, based on their median non-Medicare profit margins and other factors from 2012 to 2016. For these years, the hospitals under high pressure historically had non-Medicare profit margins of less than 1 percent, while the low-pressure hospitals had non-Medicare profit margins of more than 5 percent. We found that hospitals under high pressure during the five-year period ended up with lower standardized Medicare costs per discharge in 2017 than hospitals under low levels of financial pressure. For more details on our analytic methods, see our earlier analysis of payment adequacy (Medicare Payment Advisory Commission 2011).

The following are key findings from our analysis of financial pressure on hospitals:

- **High pressure equals low cost.** The 25 percent of hospitals under the most financial pressure had median standardized Medicare costs per case that were 6

percent lower than the national median for the 2,798 IPPS hospitals with available data. Because of their lower Medicare costs, hospitals under pressure had only slight losses on Medicare (–2 percent margin). These hospitals tended to have slightly higher shares of patients paying at government rates (50 percent of inpatient days were attributed to Medicare and Medicaid FFS patients).

- **Low pressure equals high cost.** The 62 percent of hospitals under a low level of financial pressure had median standardized Medicare costs per case that were 3 percent above the national median. Because of higher costs, they generated a median Medicare profit margin of –11 percent, about 2 percentage points below the national median. These hospitals tended to have a slightly smaller share of patients paying at government rates (46 percent of inpatient days were attributed to Medicare and Medicaid FFS patients).

In addition to cost differences at the hospital level, cost differences appear at the state level. The literature generally finds that a dominant insurer in a state can reduce the relative market power of hospitals and the prices commercial insurers pay hospitals (Trish and Herring 2015). We find that lower commercial prices can result in lower costs. For example, in North Dakota and Alabama, where there is one dominant insurer and relatively low commercial payment rates, hospital wage rates are relatively low. (By relatively low, we mean that the ratio of hospital wages to wages paid by other employers for comparable employees is lower in Alabama and North Dakota than in the average state) (Medicare Payment Advisory Commission 2007).

Another way to examine the relationship between financial pressure and costs is to see how changes in financial pressure affect changes in costs. For example, White and Wu found that hospitals that received higher Medicare payment increases resulting from policy changes tended to have higher cost growth (White and Wu 2014). Contrary to “cost-shift” theory, they also found that lower Medicare price growth did not cause hospitals to increase prices negotiated with commercial insurers. Instead, they found lower Medicare prices led to lower cost growth (White 2013). Similar findings have been reported by others (Clemens and Gottlieb 2017, Frakt 2015). A recent study examined how hospitals responded when they received a large increase in their wage index through Section 508 of the Medicare Modernization Act. The study found that the hospitals that received higher Medicare payments through

the 508 program “treated more patients, increased payroll, hired nurses, added new technology, raised CEO pay, and ultimately increased their spending by over \$100 million annually” (Cooper et al. 2017). The implication of these studies is that constraining Medicare prices should help constrain hospital costs.

Relatively efficient hospitals

The Commission follows two principles when identifying a set of efficient providers. First, the providers must do relatively well on cost and quality metrics. Second, the performance has to be consistent, meaning that the provider cannot have poor performance on any metric over the past three years. In the hospital sector, the variables we use to identify relatively efficient hospitals are hospital-level mortality rates (3M[®] risk-adjusted all-condition mortality), readmission rates (3M[®] potentially preventable readmissions), and standardized inpatient Medicare costs per case. Our assessment of efficiency is not in absolute terms, but rather, relative to other IPPS hospitals.

Categorizing hospitals as relatively efficient We assigned hospitals to the relatively efficient group or the control group according to each hospital’s performance relative to the national median on a set of risk-adjusted cost and quality metrics for the period 2014 to 2016.¹² We then examined the performance of the two hospital groups in fiscal year 2017.

Hospitals were identified as relatively efficient if they met four criteria in each year from 2014 to 2016:

- Risk-adjusted mortality rates were among the best two-thirds of all hospitals.
- Risk-adjusted readmission rates were among the best two-thirds of all hospitals.
- Standardized costs per discharge were among the best two-thirds of all hospitals.
- Risk-adjusted mortality or standardized costs per discharge were among the best one-third of all hospitals.

The objective was to identify hospitals that consistently performed at an above-average level on at least one measure (cost or quality) and that always performed reasonably well on all measures. The rationale for this methodology and the details of computing the various measures are discussed in our March 2011 report (Medicare Payment Advisory Commission 2011). As a

**TABLE
3-9****Performance of relatively efficient hospitals**

Relative performance measure	Type of hospital	
	Relatively efficient, 2014-2016	Other hospitals
Number of hospitals	291	1,860
Share of hospitals	14%	86%
Historical performance, 2014-2016 (percent of national median)		
Risk-adjusted:		
Composite 30-day mortality (3M™)	89%	101%
Readmission rates (3M)	93	102
Standardized Medicare costs per discharge	89	101
Performance metrics, 2017 (percent of national median)		
Risk-adjusted:		
Composite 30-day mortality (3M)	93%	102%
Composite 30-day readmission (3M)	95	103
Standardized Medicare costs per discharge	91	101
Median:		
Overall Medicare margin, 2017	-2%	-9%
Non-Medicare margin, 2017	11	9
Total (all-payer) margin, 2017	8	5

Note: Relative measures are the median for the group as a share of the median of all hospitals. Per case costs are standardized for area wage rates, case-mix severity, prevalence of outlier and transfer cases, interest expense, low-income shares, and teaching intensity. Composite mortality was computed using the 3M methodology to compute risk-adjusted mortality for all conditions. We removed hospitals with low Medicaid patient loads (the bottom 10 percent of hospitals) and hospitals in markets with high service use (top 10 percent of hospitals) because of concerns that socioeconomic conditions and aggressive treatment patterns can influence unit costs and risk-adjusted quality metrics.

Source: MedPAC analysis of 2014 to 2017 Medicare cost report and claims-based quality data.

secondary check on hospital quality, we also require that at least 60 percent of the hospital's patients rated the hospital a 9 or 10 on a 10-point scale.¹³

Examining performance of relatively efficient and other hospitals from 2014 to 2016 Of the 2,151 hospitals that met our screening criteria during the 2014 to 2016 period, 291 (14 percent) were found to be relatively efficient.¹⁴ We examined the performance of relatively efficient hospitals on three measures by reporting the group's median performance divided by the median for the set of hospitals in our analysis (Table 3-9). The median efficient hospital's relative risk-adjusted 30-day mortality rate for the 3-year assessment period was 89 percent of the national median, meaning that the 30-day mortality rate for the efficient group was 11 percent below (that is, better than) the national median. The median readmission rate

for the efficient group was 7 percent below the national median. The standardized Medicare cost per discharge for the efficient group was 11 percent lower than the national median. These relatively efficient hospitals were spread across the country and had a diverse set of characteristics, but they were more likely to be larger nonprofit hospitals because those hospitals tend to have better performance on the quality metrics we analyzed. For a more complete description of the methodology and other characteristics of relatively efficient providers, see online Appendix 3-B from our 2016 report to the Congress, available at <http://www.medpac.gov>.

Historically strong performers had lower mortality and costs in 2017 Lower costs allowed the relatively efficient hospitals to generate better Medicare margins. In 2017, the median hospital in the efficient group had a Medicare

margin of –2 percent while the median hospital in the comparison group had a Medicare margin of –9 percent (Table 3-9). The relatively efficient group also continued to perform better on quality metrics, with risk-adjusted mortality equal to 93 percent of the national median and risk-adjusted readmissions equal to 95 percent of the national median (Table 3-9).

How would current-law changes for 2018, 2019, and 2020 affect hospitals' Medicare payments and beneficiaries' access?

We project Medicare margins for 2019 based on margins in 2017 and policy changes that take place in 2018 and 2019. The 2018 update for inpatient and outpatient payments was 1.35 percent. In 2019, the update is also 1.35 percent for both inpatient and outpatient services. Other changes in payment policy largely offset each other. For example, in 2018, CMS reduced Medicare payments for separately payable Part B drugs at 340B hospitals, but CMS offset those decreases by increasing payments for other outpatient services. Some other regulatory changes increased payments (e.g., higher uncompensated care payments in 2018 and 2019 due to expected increases in uninsured patients), but others decreased payments (e.g., reducing evaluation and management payment rates in 2019). The net result is that, from 2017 to 2019, payment rates increased by about 5 percent over two years after accounting for case-mix change. We expect cost growth per discharge of about 3 percent per year in 2018 and 2019, slightly faster than the past several years due to tighter labor markets. Given that costs are expected to increase about 1 percent faster than payments, we expect overall Medicare margins to decline from –9.9 percent in 2017 to about –11 percent in 2019. We also expect the efficient provider margins to remain negative. The change in Medicare margins for 2020 will depend on whether cost growth exceeds hospitals' payment rate growth on a case-mix-adjusted basis.

How should Medicare payment rates change in 2020?

The Commission's update recommendation for 2020 is based on indicators of beneficiaries' access to hospital care, hospitals' access to capital, hospital quality, and the relationship between Medicare payments and hospital costs. As we discuss in Chapter 15, the Commission is also recommending a new hospital value incentive program

(HVIP) that aligns with the Commission's principles for quality measurement and would replace existing quality incentive programs. The following recommendation would increase hospital payments by increasing the base payment rate and by increasing the average rewards hospitals receive under the proposed Medicare HVIP.

RECOMMENDATION 3

The Congress should:

- **Replace Medicare's current hospital quality programs with a new hospital value incentive program (HVIP) that:**
 - **includes a small set of population-based outcome, patient experience, and value measures;**
 - **scores all hospitals based on the same absolute and prospectively set performance targets;**
 - **accounts for differences in patients' social risk factors by distributing payment adjustments through peer grouping, and**
- **For 2020, update the 2019 Medicare base payment rates for acute care hospitals by 2 percent. The difference between the update recommendation and the amount specified in current law should be used to increase payments in a new HVIP.**

RATIONALE 3

In examining our payment adequacy indicators, we found that, in 2017, beneficiaries had good access to care, hospitals maintained strong access to capital markets, and hospital quality improved, despite negative Medicare margins for most providers. Looking forward, we expect beneficiaries' access to care to remain adequate given hospitals' modest occupancy rates and good access to capital. However, the aggregate Medicare profit margin is expected to decline to approximately –11 percent in 2019. Given these payment adequacy indicators, an update of 2 percent coupled with enhanced payments for hospitals with strong performance under the proposed HVIP would be high enough to maintain beneficiaries' access to care and move payment rates closer toward the cost of efficiently delivering high-quality care. However, the 2 percent update would still be below the projected rate of input price inflation to maintain some pressure on hospitals to constrain costs while improving quality. The 2 percent update (rather than current law) would also limit the growth in the differential between rates paid for physician office visits on a hospital campus and rates paid to freestanding physician offices. We expect

the combination of a 2 percent update and the replacing of current quality incentives (which currently reduce hospitals' Medicare payments in aggregate) with the new HVIP (which would increase Medicare payments in aggregate) would cause hospital Medicare margins to improve from 2019 to 2020 given expected levels of cost growth. We discuss the rationale for and implications of implementing a new HVIP in Chapter 15.

IMPLICATIONS 3

Spending

- Current law is expected to increase payment rates by 2.8 percent (a 3.3 percent market basket less a 0.5 percent productivity adjustment). The recommended update of 2.0 percent with an increase in quality incentive payments would result in total hospital

payments that are equal to current law. In addition, eliminating the current readmissions penalty program and hospital acquired condition penalty would remove these penalties from hospital payment rates and thus increase spending by between \$750 million and \$2 billion in 2020 and by \$5 billion to \$10 billion over five years. On net, hospital payment rates would be expected to increase by an average of 3.3 percent.

Beneficiary and provider

- We do not expect the recommendation to materially affect beneficiaries' access to care or providers' willingness to treat Medicare beneficiaries relative to current law. Beneficiaries may benefit from hospitals' enhanced incentives to improve the quality of care they provide and work with providers outside of the hospital to lower cost and improve outcomes. ■

Endnotes

- 1 Across all inpatient discharges, a handful of Medicare severity–diagnosis related groups accounted for over half of the spending growth between 2016 and 2017. Specifically, heart failure and shock cases rose, increasing costs by \$1.1 billion; chronic obstructive pulmonary disease cases, \$600 million; and septicemia cases, \$600 million.
- 2 Payments include roughly \$7 billion of inpatient and outpatient payments to critical access hospitals (CAHs), which are paid 1 percent over their costs of inpatient, outpatient, and post-acute care services in swing beds. CAHs do not receive disproportionate share hospital payments or uncompensated care payments.
- 3 In 2015 and 2016, CMS implemented several RAC program policies aimed at improving the accuracy of RACs’ auditing of inpatient hospital claims. A list of these policies can be viewed at the following website: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Monitoring-Programs/Medicare-FFS-Compliance-Programs/Recovery-Audit-Program/Downloads/Recovery-Audit-Program-Improvements-November-24-2017.pdf>. Preceding these CMS policy changes, the Commission recommended in its June 2015 report that the Secretary make several improvements to the RAC program (Medicare Payment Advisory Commission 2015a).
- 4 Seven cancer drugs account for most of the increase in OPPS spending on Part B drugs between 2016 and 2017: pembrolizumab, daratumumab, nivolumab, atezolizumab, denosumab, rituximab, and trastuzumab. In aggregate, payments to hospitals under the OPPS for these drugs increased by approximately \$1 billion from 2016 to 2017.
- 5 Data concerning hospital outpatient observation care reflect services that are separately paid for under the Medicare OPPS system and not included in other APCs. While we report a decline from 2016 to 2017 in separately payable outpatient observation visits, the volume of all outpatient observation visits (separately paid or packaged with other outpatient services) increased 3 percent from 2016 to 2017, and 32 percent from 2012 to 2017. These figures indicate that placement of patients in outpatient observation status is increasingly common for beneficiaries.
- 6 If we approximate marginal cost as total Medicare costs minus fixed building and equipment costs, then marginal profit can be calculated as follows: $\text{Marginal profit} = (\text{payments for Medicare services} - (\text{total Medicare costs} - \text{fixed building and equipment costs})) / \text{Medicare payments}$. This comparison is a lower bound on the marginal profit because we do not consider any potential labor costs that are fixed. Using a cost-accounting approach, we find that approximately 20 percent of hospital costs are fixed, resulting in a marginal profit of about 8 percent. In our March 2015 report to the Congress, we also took an econometric approach to estimating hospitals’ marginal costs and found that fixed costs were about 20 percent of overall costs for medium and large hospitals. Small hospitals tend to have a lower share of costs that are variable and thus have higher marginal profits. The finding that about 20 percent of costs are fixed at large hospitals also matches the 20 percent figure used in the Medicare outlier policy. For a discussion of our econometric results and the literature on hospital marginal costs, see the online appendix to our 2015 report, available at <http://www.medpac.gov> (Medicare Payment Advisory Commission 2015b).
- 7 Recent analysis performed by the Office of the Assistant Secretary for Planning and Evaluation found that moving to an all-condition hospital readmission *without* making any of the other changes suggested in our March 2013 package of recommendations would result in higher annual penalties (Zuckerman et al. 2017). It is important to note that any increase in penalties resulting from expanding to all conditions would be fully offset by the other changes we discussed.
- 8 Between 2010 and 2015, the Medicare share of hospital admissions rose from 42 percent to 44 percent. However, during that period, because Medicare prices rose more slowly than commercial prices and due to additional revenue from the newly insured, Medicare’s share of all hospital revenues remained at 33 percent.
- 9 The six largest departments in order of Medicare patient revenues are inpatient acute care (60 percent), outpatient care (30 percent), inpatient rehabilitation (2.1 percent), inpatient psychiatric (1.3 percent), home health care (0.7 percent), and skilled nursing services (0.4 percent).
- 10 From fiscal year 2011 through 2017, we also considered Medicare payments for health information technology; however, these payments ended for most IPPS hospitals as of fiscal year 2016.
- 11 The services included in the overall Medicare margin are Medicare’s acute inpatient, outpatient, graduate medical education, skilled nursing facility (including swing beds), hospital-based home health care, and inpatient psychiatric and inpatient rehabilitation services. Also included in the overall margin are special payments for health information technology, temporary extra payments to hospitals located in

low-spending counties, and uncompensated care payments (as of fiscal year 2015).

12 We use medians rather than means to limit the influence of outliers on our set of efficient providers.

13 While HCAHPS[®] (Hospital–Consumer Assessment of Healthcare Providers and Systems[®])—and similar patient satisfaction surveys—have the limitation of being subjective, we add it as another way to screen out low-value providers because it has the advantage of not being dependent on

coding. It is possible that overly aggressive coding by some providers could artificially lower their risk-adjusted cost and risk-adjusted mortality metrics.

14 The 2,151 hospitals that met our screening criteria had levels of profitability similar to the overall population of hospitals. However, these hospitals tended to be larger than the average hospital for two reasons. First, we screened out hospitals with fewer than 500 discharges due to instability in their costs and quality indicators. Second, we excluded critical access hospitals due to their different cost accounting rules.

References

- Appleby, J. 2018. ‘Holy cow’ moment changes how Montana’s state health plan does business. *Kaiser Health News*, June 20.
- Barclays. 2018. Health care services: Initiating coverage of hospital sector. August 14.
- Berenson, R. A., J. H. Sunshine, D. Helms, et al. 2015. Why Medicare Advantage plans pay hospitals traditional Medicare prices. *Health Affairs* 34, no. 8 (August): 1289–1295.
- Bureau of Labor Statistics, Department of Labor. 2018a. May 2017 national occupational employment and wage estimates United States. <http://www.bls.gov/oes/>.
- Bureau of Labor Statistics. 2018b. National current employment statistics, October 2018. <https://www.bls.gov/ces/data.htm>.
- Bureau of Labor Statistics, Department of Labor. 2017. Employment cost index – September 2017. Table 4. News release. October 31. https://www.bls.gov/news.release/archives/eci_10312017.pdf.
- Bureau of Labor Statistics, Department of Labor. 2016. May 2015 national occupational employment and wage estimates United States. <http://www.bls.gov/oes/>.
- Cain Brothers. 2018. *Industry Insights*. November 20. <https://www.cainbrothers.com/research-type/newsletters/>.
- Census Bureau. 2018. Value of construction put in place survey at a glance. <https://www.census.gov/construction/c30/c30index.html>.
- Clemens, J., and J. Gottlieb. 2017. In the shadow of a giant: Medicare’s influence on private physician payments. *Journal of Political Economy* 125, no. 1 (February): 1–39.
- Conn, J. 2017. Consumers fueling outpatient construction. *Modern Healthcare*, March.
- Cooper, Z., A. Kowalski, E. Powell, et al. 2017. *Politics, hospital behavior, and health care spending*. NBER working paper no. 23748. Cambridge, MA: National Bureau of Economic Research.
- Fitch Ratings. 2018. 2018 median ratios for nonprofit hospitals and healthcare systems. September 20.
- Frakt, A. 2015. Hospitals are wrong about shifting costs to private insurers. *New York Times*, March 23.
- Goldberg, S. 2018. As it scopes out its post-merger identity, Amita looks beyond hospitals. *Modern Healthcare*, October 29.
- Government Accountability Office. 2015. *Medicare Part B drugs: Action needed to reduce financial incentives to prescribe 340B drugs at participating hospitals*. Washington, DC: GAO.
- Government Accountability Office. 2013. *VA health care: Management and oversight of fee basis care need improvement*. GAO–13–441. Washington, DC: GAO.
- Health Care Cost Institute. 2018. *2016 health care cost and utilization report*. Washington, DC: HCCI.
- Hines, A. 2015. *Trends in observed adult inpatient mortality for high-volume conditions, 2002–2012*. Washington, DC: Agency for Healthcare Research and Quality.
- Irving Levin Associates Inc. 2018. *The health care services acquisition report: 24th edition*. Norwalk, CT: Irving Levin Associates Inc.
- Japsen, B. 2018. Tenet Healthcare signals outpatient acquisitions ahead amid value-based care push. *Modern Healthcare*, February 27.
- Krumholz, H. 2015. Mortality, hospitalizations, and expenditures for the Medicare population aged 65 years or older 1999–2013. *JAMA* 314 no. 4 (July 28): 355–365.
- Maeda, J., and L. Nelson. 2017. *An analysis of private-sector prices for hospital admissions*. Congressional Budget Office working paper 2017–02. Washington, DC: CBO.
- Medicaid and CHIP Payment and Access Commission. 2016. *Report to Congress on Medicaid disproportionate share hospital payments*. Washington, DC: MACPAC.
- Medicare Payment Advisory Commission. 2018. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015a. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2011. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2007. *Report to the Congress: Promoting greater efficiency in Medicare*. Washington, DC: MedPAC.

Moody's Investors Service. 2018. Non-profit and public health care: Medians—Operating pressures persist as growth in expenses exceeds revenue. August 28.

Reed, T. 2018. LifePoint Health leaves Nasdaq following completed merger with RCCH Healthcare Partners. *Fierce Healthcare*, November 16. <http://www.fiercepharma.com/pharma/big-three-pbms-cut-loose-more-specialty-pharmacies-as-scrutiny-grows>.

S&P Global Ratings. 2018. US not-for-profit acute health care ratios: Sector is buffeted by disruption, yet 2017 median trends remain unchanged from last year. July 17.

Thomson Reuters. 2018. Hospital municipal bond issuances: As of October 29, 2018.

Tosczak, M. 2018. No more negotiations: State health plan wants clearer process, lower prices. *North Carolina Health News*, November 1.

Trish, E. E., and B. J. Herring. 2015. How do health insurer market concentration and bargaining power with hospitals affect health insurance premiums? *Journal of Health Economics* 42 (July): 104–114.

White, C. 2013. Contrary to cost-shift theory, lower Medicare hospital payment rates for inpatient care lead to lower private payment rates. *Health Affairs* 32, no. 5 (May): 935–943.

White, C., and V. Y. Wu. 2014. How do hospitals cope with sustained slow growth in Medicare prices? *Health Services Research* 49, no. 1 (February): 11–31.

Zuckerman, R. B., K. E. Joynt Maddox, S. H. Sheingold, et al. 2017. Effect of a hospital-wide measure on the Readmissions Reduction Program. *New England Journal of Medicine* 377, no. 16 (October 19): 1551–1558.

C H A P T E R

4

Physician and other health professional services

R E C O M M E N D A T I O N

- 4** For calendar year 2020, the Congress should increase the calendar year 2019 Medicare payment rates for physician and other health professional services by the amount specified in current law.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Physician and other health professional services

Chapter summary

Physicians and other health professionals deliver a wide range of services—including office visits, surgical procedures, and diagnostic and therapeutic services—in a variety of settings. In 2017, Medicare paid \$69.1 billion for physician and other health professional services, accounting for 14 percent of fee-for-service (FFS) Medicare benefit spending. About 985,000 clinicians billed Medicare: roughly 596,000 physicians and 389,000 nurse practitioners, physician assistants, therapists, chiropractors, and other practitioners.

Medicare pays for the services of physicians and other health professionals using a fee schedule. Under current law, there is no update to Medicare's conversion factor for the fee schedule on January 1, 2020.

Assessment of payment adequacy

We use the following factors to assess payment adequacy for physicians and other health professionals: beneficiaries' access to care, the supply of providers, volume growth, quality, and Medicare payments and providers' costs.

Beneficiaries' access to care—Overall, beneficiary access to physician and other health professional services is comparable with prior years. Most beneficiaries continue to report that they are able to find a new doctor without a problem. A small number of beneficiaries report more difficulty, with a

In this chapter

- Are Medicare fee schedule payments adequate in 2019?
- How should Medicare payments change in 2020?

higher share reporting problems obtaining a new primary care doctor than problems obtaining a new specialist.

- ***Supply of providers***—The number of physicians per beneficiary declined slightly, the number of advanced practice registered nurses and physician assistants per beneficiary rose, and the share of providers enrolled in Medicare’s participating provider program remains high.
- ***Volume of services***—In 2017, across all services, volume per beneficiary grew by 1.6 percent. Among broad service categories, growth rates were 1.2 percent for evaluation and management services, 1.3 percent for imaging services, 2.1 percent for major procedures, 2.1 percent for other procedures, and 2.4 percent for tests.

Quality of care—CMS assesses the quality of Medicare-billing physicians and other health professionals based on clinician-reported individual quality measures. We report three population-based measures: patient experience measures, avoidable hospitalizations for ambulatory care–sensitive conditions, and rates of low-value care in Medicare. Patient experience scores in Medicare FFS remain high, and rates of avoidable hospitalizations for ambulatory care–sensitive conditions continue to decline modestly from prior years, but there is substantial use of low-value care.

Medicare payments and providers’ costs—CMS currently projects that the increase in 2020 in the Medicare Economic Index (which measures input prices) will be 2.4 percent. In 2017, Medicare FFS payment rates for physician and other health professional services averaged 75 percent of commercial rates paid by preferred provider organizations, unchanged from 2016. Median compensation in 2017 was much lower for primary care physicians than for physicians in certain specialties, such as radiology and nonsurgical, procedural specialties, continuing to raise concerns about fee schedule mispricing and its impact on primary care.

The evidence suggests that Medicare payments for physicians and other health professionals are adequate. Therefore, the Commission recommends that the 2020 payment rate for physician and other health professional services be updated by the amount specified in current law. ■

Background

Physicians and other health professionals billing under Medicare's fee schedule deliver a wide range of services—office visits, surgical procedures, and diagnostic and therapeutic services—in a variety of settings.

The Medicare program paid \$69.1 billion for physician and other health professional services in 2017, or 14 percent of benefit spending in Medicare's traditional fee-for-service (FFS) program. In 2017, about 985,000 health professionals billed Medicare through the fee schedule—roughly 596,000 physicians and 389,000 nurse practitioners, physician assistants, therapists, chiropractors, and other practitioners.

Medicare uses a fee schedule to pay for physician and other health professional services based on a list of over 7,000 services and their payment rates. In determining payment rates for each service, CMS considers the amount of clinician work required to provide a service, expenses related to maintaining a practice, and professional liability insurance costs. These three factors

are adjusted for variation in the input prices in different markets, and the sum is multiplied by the fee schedule's conversion factor (average payment amount) to produce a total payment amount.¹ The conversion factor will be \$36.04 in 2019, up from \$36.00 in 2018.

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) established a set of updates for clinicians billing under the Medicare fee schedule and repealed the prior framework that set the conversion factor—the sustainable growth rate (SGR) formula. The SGR was established to limit total fee schedule spending by restraining annual updates when spending exceeded certain parameters. MACRA established two paths for clinicians: one payment path for clinicians who participate in advanced alternative payment models (A-APMs) and, for other clinicians, the Merit-based Incentive Payment System (MIPS) (Table 4-1). In 2020, there is no statutory update for clinicians. Clinicians qualifying for the A-APM incentive payment will receive an incentive payment of 5 percent of their professional services payments in a lump sum. Clinicians remaining in MIPS can receive payment adjustments of –5 percent to +5 percent (or higher) in 2020, based on performance.

**TABLE
4-1**

**Statutory payment updates and incentive payments
for physicians and other health professionals**

	2019	2020	2021	2022	2023	2024	2025	2026 and later
A-APM clinicians								
Update	0.25%	0%	0%	0%	0%	0%	0%	0.75%
APM bonus	5%	5%	5%	5%	5%	5%	N/A	N/A
Other clinicians								
Update	0.25%	0%	0%	0%	0%	0%	0%	0.25%
Potential MIPS adjustments	(–4% to +4%)	(–5% to +5%)	(–7% to +7%)	(–9% to +9%)	(–9% to +9%)	(–9% to +9%)	(–9% to +9%)	(–9% to +9%)

Note: A-APM (advanced alternative payment model), N/A (not applicable), MIPS (Merit-based Incentive Payment System). Clinicians who are subject to MIPS can receive upward or downward adjustments of up to 4 percent in 2019, 5 percent in 2020, 7 percent in 2021, and 9 percent in 2022 and later. The MIPS maximum upward adjustment may exceed these limits or be less than these amounts because of scaling factors and an additional increase for exceptional performance. The basic MIPS adjustments are budget neutral, and there is an additional \$500 million per year from 2019 to 2024 for exceptional performance under MIPS. The 5 percent incentive payment for A-APM participation expires after 2024.

Source: Medicare Access and CHIP Reauthorization Act of 2015 and Bipartisan Budget Act of 2018, www.congress.gov.

**TABLE
4-2****Satisfaction with the overall
quality of health care received in all
settings in the past 12 months, 2018**

	Medicare (ages 65 and older)	Private insurance (ages 50-64)
Very satisfied	68%	55%
Somewhat satisfied	20	25
Somewhat dissatisfied	3	5
Very dissatisfied	2	1

Note: Table excludes the following responses: "Did not receive health care in past 12 months," "Don't know," and "Refused." It does not include Medicare beneficiaries under the age of 65.

Source: MedPAC-sponsored telephone survey conducted in 2018.

**Are Medicare fee schedule payments
adequate in 2019?**

We assess payment adequacy by reviewing beneficiaries' access to care provided by physicians and other health professionals, the supply of physicians and other health professionals, volume growth, quality of care, Medicare's payment rates relative to commercial rates paid by preferred provider organizations, physician compensation across specialties, and the change in input prices for physician and other health professional services. Overall, most indicators show no significant change from prior years.

Beneficiaries' access to care

We use a number of measures to assess beneficiary access to timely, appropriate care, including direct reporting from beneficiaries (through, for example, our own beneficiary telephone survey); focus groups with beneficiaries; and health facility site visits conducted yearly.

Each year, the Commission sponsors a telephone survey of 4,000 Medicare beneficiaries ages 65 and over and 4,000 privately insured individuals ages 50 to 64. The goal in surveying these two populations is to assess whether access concerns reported by Medicare beneficiaries are unique to the Medicare population or are part of trends in

the broader health care delivery system. This year's survey was fielded in the summer and fall of 2018.

The Commission also conducts focus groups in markets around the country to provide a qualitative description of beneficiary and provider experiences with the Medicare program. This year, we conducted nine focus groups of Medicare beneficiaries in three markets, and we conducted a primary care physician focus group in each location. In these markets, we also conducted site visits and interviews with various providers.

Overall, findings from our survey and focus groups are consistent with one another and similar to prior years.² Medicare beneficiaries generally have adequate access to clinician services, and their reported access is largely comparable with (or in some cases, better than) access for privately insured individuals.

**Medicare beneficiaries' overall satisfaction with
care is similar to satisfaction among privately
insured patients**

In our telephone survey, a slightly higher share of Medicare beneficiaries reported that they were very or somewhat satisfied with their care (88 percent) compared with those who have private insurance (80 percent) (Table 4-2).

**Most beneficiaries report that they are able to see
a doctor when they need to**

Indicators from our 2018 telephone survey of access are largely comparable with prior years' surveys. In particular, in 2018, 70 percent of Medicare beneficiaries reported that they never had to wait longer than they wanted for routine care, and 79 percent reported the same for illness or injury care (Table 4-3). Medicare beneficiaries were less likely to report trouble obtaining either type of care when needed than privately insured individuals (the rates for privately insured individuals were 64 percent for routine care and 74 percent for illness or injury care).

Rates of access to timely regular or routine care for both Medicare and privately insured individuals were slightly worse in 2018 than in 2017, but Medicare access continued to be slightly better than access for privately insured individuals (Figure 4-1, p. 102).

Medicare beneficiaries were also less likely than privately insured individuals to report that they waited longer than they wanted for care for illness or injury (Figure 4-2, p. 102).

**TABLE
4-3**
Most aged Medicare beneficiaries and older privately insured individuals had good access to physician care, 2014–2018

Survey question	Medicare (ages 65 and older)					Private insurance (ages 50–64)				
	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
Unwanted delay in getting an appointment: Among those who needed an appointment in the past 12 months, “How often did you have to wait longer than you wanted to get a doctor’s appointment?”										
For routine care										
Never	72% ^{ab}	72% ^a	68%	73% ^{ab}	70% ^{ab}	69% ^{ab}	69% ^{ab}	67% ^b	69% ^{ab}	64% ^a
Sometimes	20 ^a	19 ^a	22 ^b	20	20 ^a	23 ^{ab}	23 ^{ab}	23 ^b	22 ^b	26 ^a
Usually	3 ^b	4	4	3 ^b	5	4	4	5	4	5
Always	3	3	3	3	3 ^a	3 ^b	3	4	3	4 ^a
Don’t know/Refused	2 ^b	2 ^b	2 ^b	1 ^b	2 ^a	1	1	1	1	2 ^a
For illness or injury										
Never	83 ^{ab}	82 ^{ab}	79 ^a	80 ^a	79 ^a	79 ^{ab}	77 ^{ab}	75 ^a	76 ^a	74 ^a
Sometimes	12 ^{ab}	13 ^{ab}	16 ^a	15	15 ^a	16 ^{ab}	17 ^a	19 ^a	18	19 ^a
Usually	2	3	2 ^{ab}	2	2	2 ^b	3	3 ^a	2 ^b	3
Always	1 ^{ab}	2	2 ^{ab}	1 ^b	2	2 ^a	2	3 ^a	2	2
Don’t know/Refused	2	1	2	1	1	1 ^b	1 ^b	1 ^b	1	2
Not accessing a doctor for medical problems: “During the past 12 months, did you have any health problem or condition about which you think you should have seen a doctor or other medical person, but did not?”										
Share answering “Yes”	10	11	11 ^a	11	11 ^a	11 ^b	12	12 ^a	12 ^b	14 ^a
Looking for a new doctor: “In the past 12 months, have you tried to get a new...?” (Share answering “Yes”)										
Primary care doctor	8	7 ^{ab}	8 ^{ab}	9 ^a	10	8 ^b	9 ^a	10 ^a	11 ^a	10
Specialist	17 ^b	16 ^b	18	17 ^a	19 ^a	17 ^b	18 ^b	18 ^b	20 ^a	21 ^a
Getting a new physician: Among those who tried to get an appointment with a new primary care physician or a specialist in the past 12 months, “How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it...”										
Primary care physician										
No problem	67	67	64	69 ^a	71	63	63	63	59 ^{ab}	67
Share of total insurance group	5.5 ^b	4.7 ^b	5.1 ^b	6.2	7.1	4.9 ^b	5.7	6.1	6.5	6.7
Small problem	16	18	15	13	13	16	18	16	18	16
Share of total insurance group	1.3	1.2	1.2	1.2 ^a	1.3	1.3	1.7	1.5	2.0 ^a	1.6
Big problem	15	14	20	14 ^a	14	19	17	20	22 ^a	16
Share of total insurance group	1.2	1.0	1.6	1.3 ^a	1.4	1.5	1.5	1.9	2.4 ^a	1.7
Specialist										
No problem	85	87 ^a	82	83	84	85 ^b	82 ^a	79	81	80
Share of total insurance group	14.4	14.2 ^b	14.7	14.1	16.1	14.5 ^b	14.8 ^b	14.4 ^b	16.2	17.1
Small problem	7	7	10	11 ^b	7	9	8	9	11	9
Share of total insurance group	1.2	1.1	1.8	1.9	1.4	1.4	1.5	1.6	2.2	2.0
Big problem	7	6	8 ^a	5 ^a	8	6	9	11 ^a	8 ^a	10
Share of total insurance group	1.2	1.0 ^a	1.4	0.9 ^{ab}	1.5	1.0 ^b	1.7 ^a	2.0	1.6 ^a	2.0

Note: Numbers may not sum to 100 percent because of rounding. Sample sizes for each group (Medicare and privately insured) are 4,000. Sample sizes for individual questions varied. “Aged” beneficiaries are those ages 65 or older.

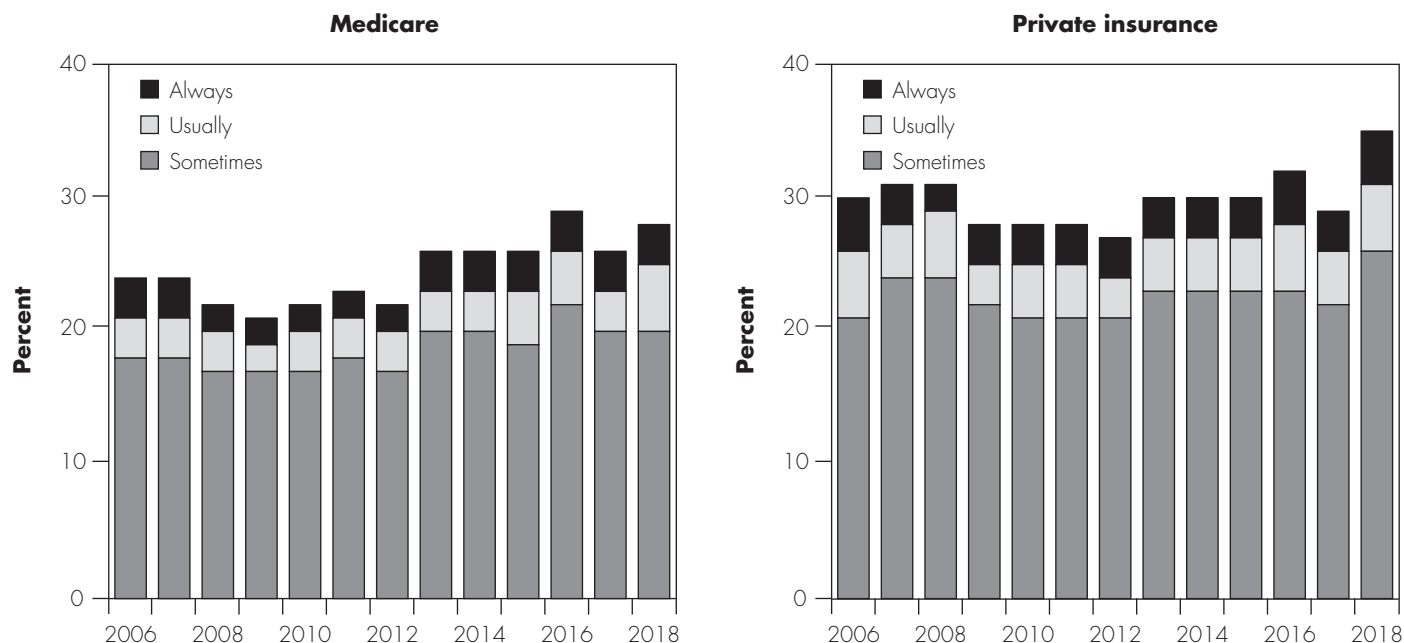
^a Statistically significant difference between the Medicare and privately insured groups in the given year (at a 95 percent confidence level).

^b Statistically significant difference from 2018 within the same insurance category (at a 95 percent confidence level).

Source: MedPAC-sponsored telephone surveys conducted from 2014 to 2018.

**FIGURE
4-1**

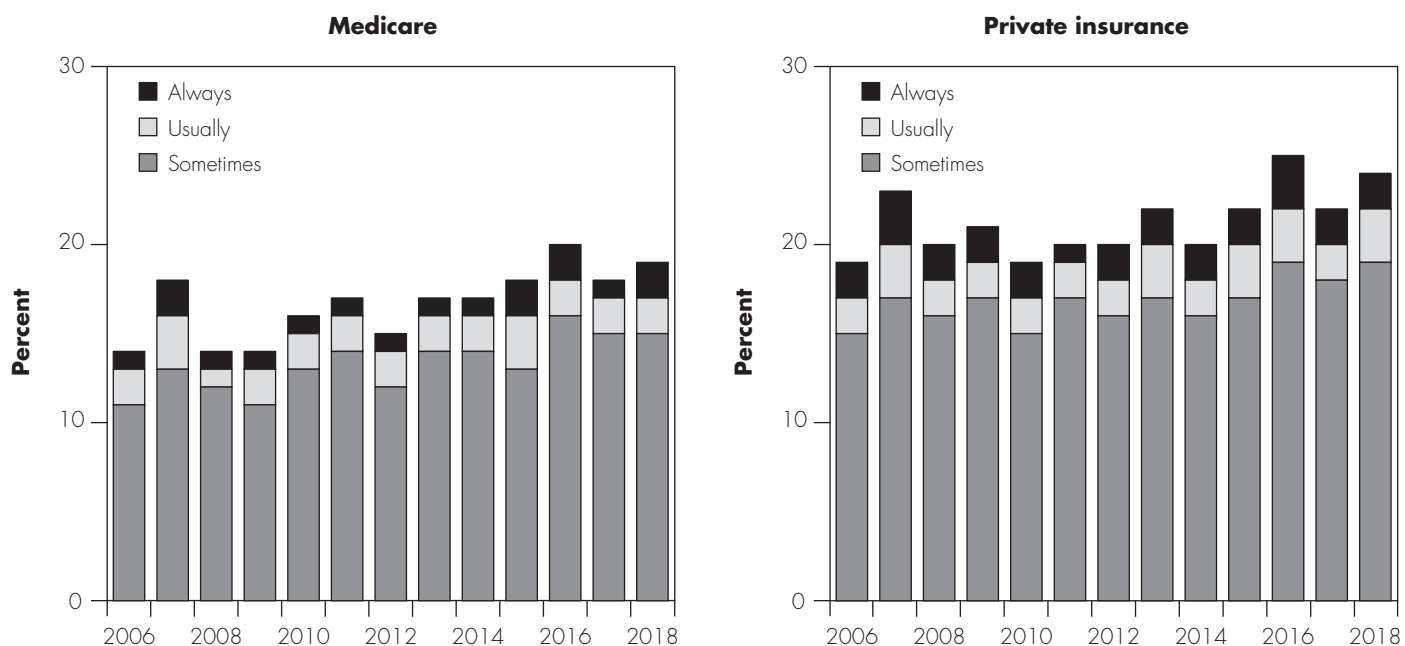
Among patients seeking care, share who ever waited longer than wanted for regular or routine care, Medicare and private insurance



Source: MedPAC-sponsored telephone surveys, 2006–2018.

**FIGURE
4-2**

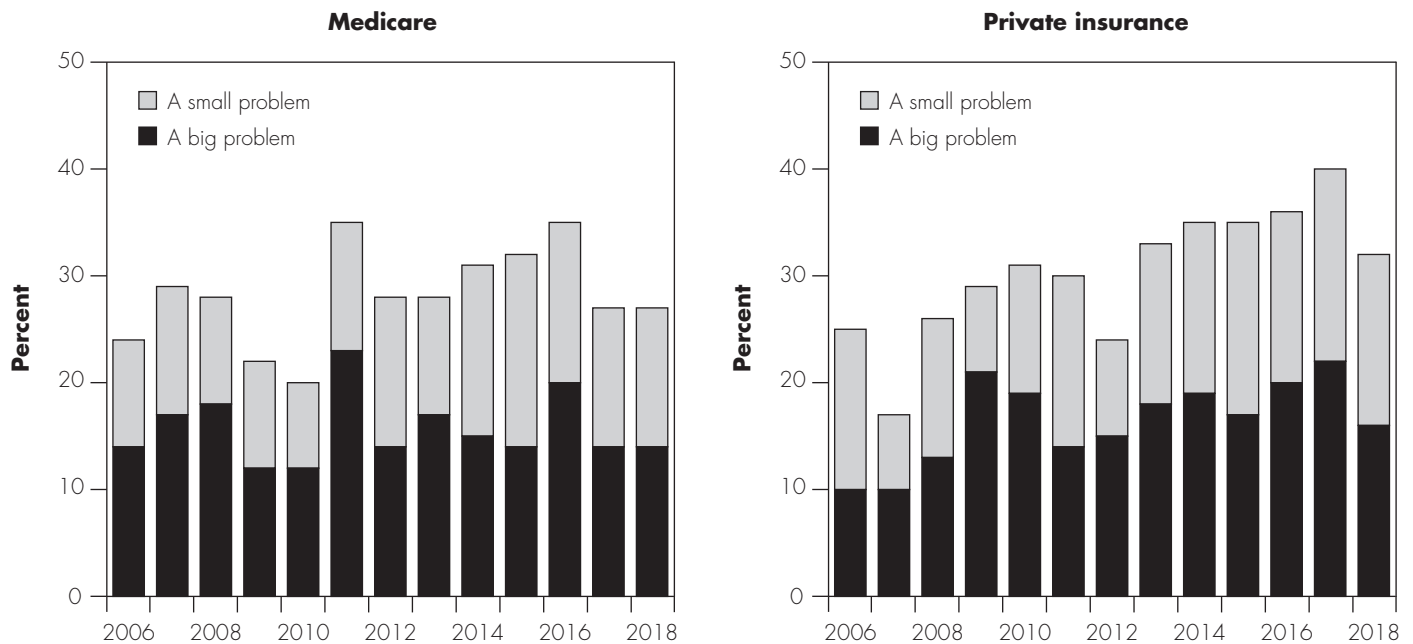
Among patients seeking care, share who ever waited longer than wanted for illness or injury care, Medicare and private insurance



Source: MedPAC-sponsored telephone surveys, 2006–2018.

**FIGURE
4-3**

Among those looking, share of respondents who indicated trouble finding a new primary care doctor, Medicare and private insurance



Note: The share of respondents looking for a new doctor each year is about 10 percent for primary care. Therefore, the share of Medicare respondents facing a problem (small or big) in obtaining a new primary care doctor was 2.7 percent in 2018, and the share of private insurance respondents facing a problem (small or big) was 4.3 percent in 2018.

Source: MedPAC-sponsored telephone surveys, 2006–2018.

Beneficiaries report more difficulty accessing primary care than specialty care

We also ask respondents whether, when they are looking for a new doctor, they are able to find one without difficulty. Most beneficiaries reported that they were able to find a new doctor without a problem.

Consistent with prior years, beneficiaries looking for a new doctor generally reported more problems finding one when seeking a new primary care doctor than seeking a new specialist (Table 4-3, p. 101). For primary care, 10 percent were looking for a new doctor, and of those looking, 14 percent reported a big problem, meaning that, on net, 1.4 percent of the Medicare population reported a big problem. For specialty care, 19 percent were looking for a new doctor; of those looking, 8 percent reported a

big problem, meaning that, on net, 1.5 percent of the total Medicare population reported a big problem.

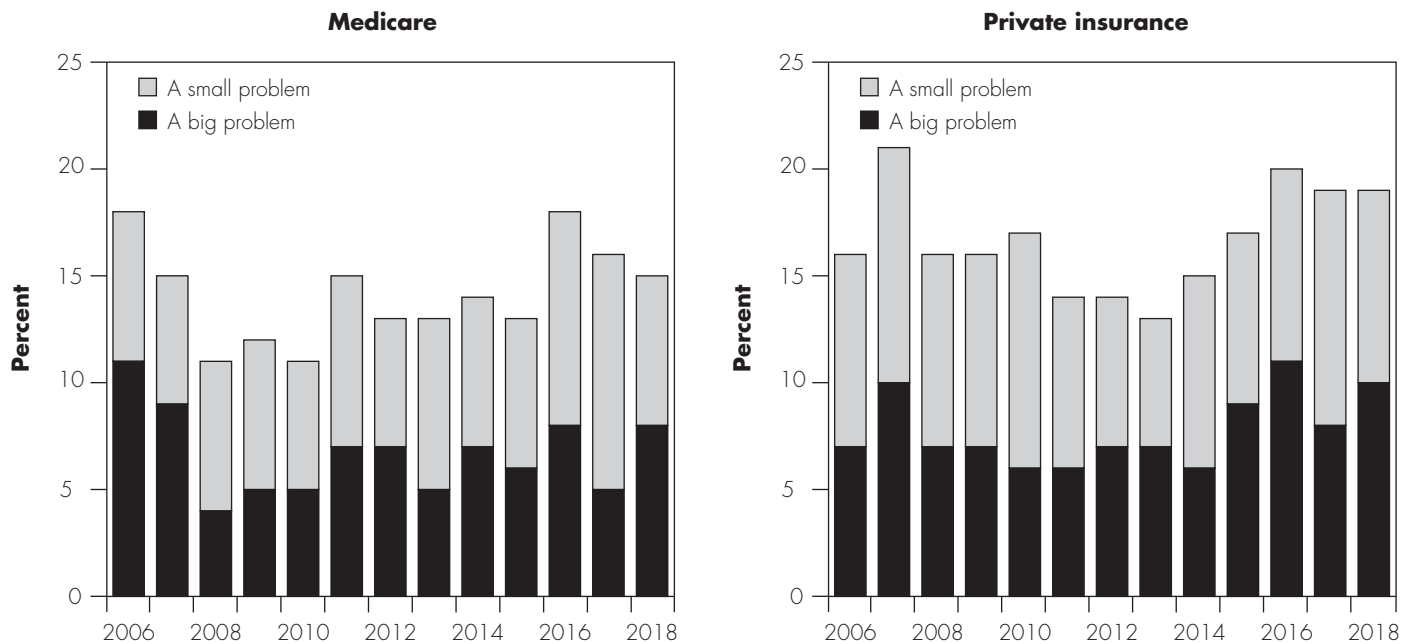
This pattern of greater difficulty for Medicare beneficiaries (among those looking) in finding a new primary care doctor relative to finding a specialist is consistent with prior years, other surveys, and our beneficiary focus groups.

However, overall, Medicare beneficiaries continue to be slightly less likely than individuals with private insurance to report problems obtaining primary and specialty care (Figure 4-3, this page, and Figure 4-4, p. 104).

Beneficiaries in the Commission's telephone survey reported difficulty with certain specialty referrals, namely dermatologists (likely due to specialization in cosmetic dermatology vs. medical dermatology), psychiatrists, and neurologists.

**FIGURE
4-4**

Among those looking, share of respondents indicating trouble finding a new specialist, Medicare and private insurance



Note: The share of respondents looking for a new doctor each year is about 20 percent for specialty care. Therefore, the share of Medicare respondents facing a problem (small or big) in obtaining a new specialist was 2.8 percent in 2018, and the share of private insurance respondents facing a small or big problem was 4.0 percent in 2018.

Source: MedPAC-sponsored telephone surveys, 2006–2018.

Some groups of beneficiaries report more difficulty obtaining care

In our telephone survey, minority beneficiaries were more likely than (non-Hispanic) White beneficiaries to report that they could not obtain care as quickly as they wanted.

As in prior years, differences in reported access between urban and rural beneficiaries were minimal.

Minority beneficiaries reported more difficulty receiving care as soon as they wanted and higher rates of forgoing care

We continue to find through the Commission's telephone survey that Medicare beneficiaries who belong to racial or ethnic minority groups are more likely to report waiting longer than they want for regular or routine care than non-Hispanic White beneficiaries, consistent with general trends in poorer access to health care among racial and ethnic minority groups (Table 4-4).³

Specifically, minority Medicare beneficiaries were more likely than non-Hispanic White Medicare beneficiaries to report that they always had to wait longer than they wanted for a routine doctor's appointment (5 percent vs. 2 percent, respectively). Similar to prior years' findings, minority Medicare beneficiaries were also more likely than non-Hispanic White beneficiaries to say that they did not receive care when they thought they should have (15 percent for minority beneficiaries vs. 10 percent for non-Hispanic White beneficiaries).

Minority Medicare beneficiaries also reported higher rates of problems finding a specialist, and a similar pattern exists for privately insured minority individuals. Although the small sample sizes of the Commission's survey generally do not permit us to detect significant differences in reported access among Black (or African American) and Hispanic (or Latinx) beneficiaries separately,

**TABLE
4-4****Medicare beneficiaries had similar access to physicians compared with privately insured individuals, but minorities in both groups reported problems more frequently, 2018**

Survey question	Medicare (ages 65 and older)			Private insurance (ages 50-64)		
	All	White	Minority	All	White	Minority
Unwanted delay in getting an appointment: Among those who needed an appointment in the past 12 months, "How often did you have to wait longer than you wanted to get a doctor's appointment?"						
For routine care						
Never	70% ^a	71% ^{ab}	65% ^b	64% ^a	65% ^{ab}	61% ^b
Sometimes	20 ^a	20 ^a	21 ^a	26 ^a	25 ^a	29 ^a
Usually	5	5	5	5	5	4
Always	3 ^a	2 ^{ab}	5 ^b	4 ^a	4 ^{ab}	6 ^b
Don't know/Refused	2 ^a	2 ^{ab}	3 ^{ab}	2 ^a	* ^a	1 ^a
For illness or injury						
Never	79 ^a	80 ^{ab}	75 ^b	74 ^a	75 ^{ab}	71 ^b
Sometimes	15 ^a	15 ^a	15 ^a	19 ^a	19 ^a	22 ^a
Usually	2	2	3	3	3	4
Always	2	2	3	2	2 ^b	3 ^b
Don't know/Refused	1	1 ^{ab}	3 ^{ab}	2	2 ^a	2 ^a
Not accessing a doctor for medical problems: "During the past 12 months, did you have any health problem or condition about which you think you should have seen a doctor or other medical person, but did not?"						
Share answering "Yes"	11 ^a	10 ^{ab}	15 ^b	14 ^a	13 ^a	16
Looking for a new doctor: "In the past 12 months, have you tried to get a new...?" (Share answering "Yes")						
Primary care physician	10	10	9	10	9	11
Specialist	19 ^a	20 ^b	15 ^b	21 ^a	23 ^b	19 ^b
Getting a new physician: Among those who tried to get an appointment with a new primary care physician or a specialist in the past 12 months, "How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it..."						
Primary care physician						
No problem	71	71	69	67	72 ^b	59 ^b
Share of total insurance group, by race	7.1	7.2	6.2	6.7	6.7	6.7
Small problem	13	14	14	16	15	17
Share of total insurance group, by race	1.3	1.4	1.3	1.6	1.4	1.9
Big problem	14	15	14	16	14 ^b	23 ^b
Share of total insurance group, by race	1.4	1.5	1.3	1.7	1.3 ^b	2.5 ^b
Specialist						
No problem	84	86 ^b	77 ^b	80	82 ^b	74 ^b
Share of total insurance group, by race	16.1	17.3 ^b	11.9 ^b	17.1	18.5 ^b	14.0 ^b
Small problem	7	7	10	9	9	11
Share of total insurance group, by race	1.4	1.4	1.6	2.0	2.1	2.1
Big problem	8	7 ^b	13 ^b	10	8 ^b	13 ^b
Share of total insurance group, by race	1.5	1.4	2.0	2.0	1.8	2.5

Note: Respondents who did not report race or ethnicity were not included in "White" or "Minority" results but were included in "All" results. "White" in the table refers to non-Hispanic White respondents. Numbers may not sum to 100 percent because of rounding. Sample sizes for each group (Medicare and privately insured) were 4,000 in 2018. Sample sizes for individual questions varied.

^a Statistically significant difference between the Medicare and privately insured populations in the given year (at a 95 percent confidence level).

^b Statistically significant difference by race within the same insurance category in the given year (at a 95 percent confidence level).

Source: MedPAC-sponsored telephone surveys conducted in 2018.

**TABLE
4-5**

Access to physician care for Medicare beneficiaries was similar to or slightly better than access for privately insured individuals in urban and rural areas, 2018

Survey question	Medicare (ages 65 and older)			Private insurance (ages 50-64)		
	All	Urban	Rural	All	Urban	Rural
Unwanted delay in getting an appointment: Among those who needed an appointment in the past 12 months, "How often did you have to wait longer than you wanted to get a doctor's appointment?"						
For routine care						
Never	70% ^a	70% ^a	68%	64% ^a	63% ^{ab}	68% ^b
Sometimes	20 ^a	20 ^a	19 ^a	26 ^a	26 ^a	24 ^a
Usually	5	4 ^b	6 ^{ab}	5	5	4 ^a
Always	3 ^a	3 ^a	4	4 ^a	4 ^a	3
Don't know/Refused	2 ^a	2	2	2 ^a	2	1
For illness or injury						
Never	79 ^a	79 ^a	78 ^a	74 ^a	74 ^a	73 ^a
Sometimes	15 ^a	15 ^a	15 ^a	19 ^a	19 ^a	21 ^a
Usually	2	2 ^a	3	3	3 ^a	3
Always	2	2	2	2	2	2
Don't know/Refused	1	1	1	2	2	2
Not accessing a doctor for medical problems: "During the past 12 months, did you have any health problem or condition about which you think you should have seen a doctor or other medical person, but did not?" (Share answering "Yes")						
	11 ^a	11 ^a	11	14 ^a	14 ^a	13
Looking for a new primary care physician: "In the past 12 months, have you tried to get a new...?" (Share answering "Yes")						
Primary care physician	10	10	9	10	10	9
Specialist	19 ^a	19 ^a	18	21 ^a	22 ^{ab}	17 ^b
Getting a new physician: Among those who tried to get an appointment with a new primary care physician or a specialist in the past 12 months, "How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it..."						
Primary care physician						
No problem	71	72	68	67	68	64
Share of total insurance group, by area	7.1	7.1	6.0	6.7	6.8	5.9
Small problem	13	12	13	16	15	15
Share of total insurance group, by area	1.3	1.2	1.2	1.6	1.6	1.4
Big problem	14	13	18	16	15	21
Share of total insurance group, by area	1.4	1.4	1.6	1.7	1.5	1.9
Specialist						
No problem	84	84	86	80	81	82
Share of total insurance group, by area	16.1	16.1	15.7	17.1	17.6 ^b	14.0 ^b
Small problem	7	8	5	9	9	8
Share of total insurance group, by area	1.4	1.6	0.9	2.0	2.1	1.4
Big problem	8	7	9	10	9	10
Share of total insurance group, by area	1.5	1.3 ^a	1.6	2.0	2.1 ^a	1.7

Note: Numbers may not sum to 100 percent because of rounding. Sample sizes for each group (Medicare and privately insured) were 4,000 in 2018. Sample sizes for individual questions varied. The Commission uses the Census Bureau definitions of "urban" and "rural." The Census Bureau classifies as urban all territory, population, and housing units located within an urbanized area (UA) or an urban cluster (UC). It delineates UA and UC boundaries to encompass densely settled territory, which consists of core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile. In addition, under certain conditions, less densely settled territory may be part of each UA or UC. The Census Bureau's classification of rural consists of all territory, population, and housing units located outside of UAs and UCs.

^a Statistically significant difference between the Medicare and privately insured populations in a given year (at a 95 percent confidence level).

^b Statistically significant difference by area type within the same insurance category in a given year (at a 95 percent confidence level).

Source: MedPAC-sponsored telephone survey conducted in 2018.

Hispanic Medicare beneficiaries were more likely to report waiting longer than wanted for regular or routine care than non-Hispanic White beneficiaries. In addition, Black beneficiaries are significantly more likely than non-Hispanic White beneficiaries to report that they should have seen a doctor but did not (15 percent vs. 10 percent for non-Hispanic White beneficiaries) (data not shown).

Few reported differences in access between urban and rural beneficiaries Similar to prior years, the Commission's telephone survey showed no major differences in access between urban and rural beneficiaries (Table 4-5). There was no significant difference between the share of urban and rural beneficiaries experiencing an unwanted delay in getting an appointment. Urban beneficiaries reported more timely access to routine care than urban individuals with private insurance. However, differences between rural beneficiaries and rural individuals with private insurance were minimal and not statistically significant in most cases.

Nearly all beneficiaries have a regular source of care, with more use of nurse practitioners and physician assistants in rural areas

Nearly all beneficiaries in the Commission's survey reported that they had a regular source of primary care—94 percent in 2018 (data not shown). Beneficiaries in focus groups generally responded that they could access their provider the same day or within a few days.

In the Commission's telephone survey, 16 percent of beneficiaries responded that they saw a nurse practitioner (NP) or physician assistant (PA) for all or most of their primary care, and 29 percent said that they saw an NP or PA for some of their primary care (these numbers have continued to rise gradually over time). Similar to prior years, rural beneficiaries were more likely than urban beneficiaries to report seeing NPs and PAs for all or most of their primary care (21 percent for rural beneficiaries vs. 14 percent for urban beneficiaries) (data not shown).

Supply of physicians and other health professionals billing Medicare has kept pace with enrollment growth, and most clinicians are in a participating provider arrangement with Medicare

Other indicators of access include the supply of clinicians billing Medicare; the share of physicians and other health professionals who are participating providers (which means that they are required to accept Medicare's payment

as payment in full); and the share of claims that are paid on assignment.

Supply of physicians and other health professionals billing Medicare has kept pace with enrollment growth

Our analysis of Medicare FFS claims data for 2015 to 2017 shows that the number of physicians and other health professionals furnishing services to Medicare beneficiaries is growing and has generally kept pace with enrollment growth in Medicare (Table 4-6, p. 108). Between 2016 and 2017, the number of primary care physicians increased by 1 percent, from almost 185,000 to just over 186,000.⁴ Because the number of beneficiaries grew by almost 3 percent between 2016 and 2017 (data not shown), the ratio of primary care physicians to the number of beneficiaries dropped slightly, from 3.6 per 1,000 beneficiaries to 3.5 per 1,000.⁵ Similarly, the number of physicians in other specialties grew by 1 percent between 2016 and 2017, from nearly 406,000 to almost 410,000, but the number per 1,000 beneficiaries declined slightly from 7.8 to 7.7. Meanwhile, during the same period, the number of advanced practice registered nurses and PAs billing Medicare grew by 10 percent, and the number per 1,000 beneficiaries rose from 3.9 to 4.2.

Most physicians and other health professionals are part of Medicare's participating provider program, and nearly all claims are paid on assignment

In 2018, 96 percent of physicians and other health professionals billing Medicare signed an agreement with Medicare to be part of the participating provider program. Participating providers agree to take assignment for all claims, which means they accept the fee schedule amount as payment in full (almost all claims are paid on assignment).⁶ Providers who do not elect to participate receive a 5 percent lower payment amount and can choose whether to take assignment for their claims on a claim-by-claim basis. If they do not assign a claim, providers may "balance bill" up to 109.25 percent of the fee schedule amount, with the beneficiary paying the difference between 95 percent of the fee schedule amount and the amount billed. Clinicians can also opt out of the Medicare program and treat patients entirely outside of the Medicare benefit. Opt-out clinicians are concentrated in the provider specialties of dentistry and behavioral health (including psychiatry). The number of clinicians who opted out of Medicare in 2018 is largely consistent with prior years (data not shown).

**TABLE
4-6****Number of physicians and other health professionals billing Medicare, 2015–2017**

Year	Physicians				Advanced practice registered nurses and physician assistants		Other practitioners	
	Primary care specialties		Other specialties					
	Number	Number per 1,000 beneficiaries	Number	Number per 1,000 beneficiaries	Number	Number per 1,000 beneficiaries	Number	Number per 1,000 beneficiaries
2015	182,767	3.6	400,303	7.9	182,949	3.6	155,310	3.1
2016	184,905	3.6	405,780	7.8	202,874	3.9	160,661	3.1
2017	186,193	3.5	409,995	7.7	223,567	4.2	165,486	3.1

Note: Specialty is self-reported by physicians and other health professionals when they enroll in the Medicare program. “Primary care specialties” are specialties that were eligible for the Primary Care Incentive Payment program: family medicine, internal medicine, pediatric medicine, and geriatric medicine. In 2017, CMS introduced a new physician specialty code for hospitalists. Most of the physicians who billed Medicare as hospitalists in 2017 billed as a primary care specialty in 2016. To maintain consistency across years, we assigned physicians who billed as hospitalists in 2017 to the “primary care specialties” group. “Other practitioners” includes physical and occupational therapists, chiropractors, optometrists, psychologists, social workers, and podiatrists. The number billing Medicare includes those with a caseload of more than 15 different beneficiaries during the year. Beneficiary counts used to calculate numbers per 1,000 include those in fee-for-service Medicare and Medicare Advantage on the assumption that physicians and other health professionals are furnishing services to beneficiaries in both programs. Figures for 2015 and 2016 may vary from figures that appeared in prior Commission reports due to minor technical changes. Figures exclude nonperson providers such as suppliers or clinical laboratories.

Source: MedPAC analysis of Medicare claims data for 100 percent of beneficiaries and the 2018 annual report of the Boards of Trustees of the Medicare trust funds.

Higher growth in the volume of clinician services

We analyze annual changes in use of services provided by physicians and other health professionals as another indicator of payment adequacy. However, we recommend caution in interpreting such data because factors unrelated to Medicare’s payment rates can influence service volume. Evidence indicates that volume decreases could be related to the movement of services from freestanding offices to hospitals and to general practice pattern changes. For example, the number of echocardiograms per beneficiary administered in freestanding offices declined in 2017 by 0.3 percent, while the number administered in hospital outpatient departments (HOPDs) rose by 2.0 percent. Increases in volume can signal overpricing if practitioners favor certain services because they are relatively profitable, but other factors—including changes in the population, disease prevalence, Medicare benefits, site of care, technology, and beneficiaries’ preferences—can also explain volume increases.

We used claims data from 2012, 2016, and 2017 to analyze volume changes. We identified the services furnished by physicians and other professionals billing under Medicare’s fee schedule and calculated two measures of

change in service use: units of service per beneficiary and volume of services per beneficiary. Volume is measured as units of service multiplied by each service’s relative value units (RVUs) from the fee schedule. Our volume growth measure thus accounts for changes in both the number of services and the complexity, or intensity, of those services. For example, growth in the volume of imaging services would account not just for any change in the number of such services but also for any change in intensity (e.g., if providers substitute computed tomography (CT) scans for less complex X-rays). We used RVUs for 2017 to put service volume for all years on a common scale. We grouped individual service codes into broad service categories that are clinically meaningful (e.g., evaluation and management (E&M)). Each broad service category contains multiple subcategories of similar services (e.g., E&M includes office/outpatient services, hospital inpatient services, and other subcategories).

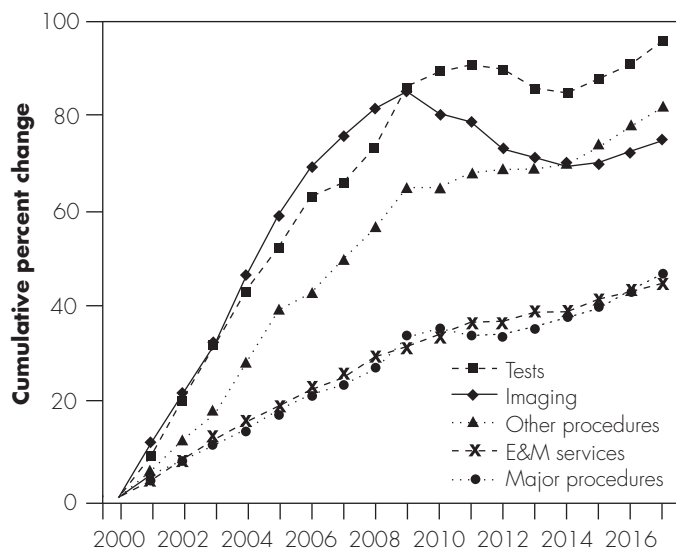
Between 2016 and 2017, across all services, volume per beneficiary grew by 1.6 percent (Table 4-7). Among broad service categories, growth rates were 1.2 percent for E&M, 1.3 percent for imaging services, 2.1 percent for major procedures, 2.1 percent for other procedures, and 2.4 percent for tests. The 2017 growth rates for all

**TABLE
4-7****Use of clinician services per FFS beneficiary, 2012-2017**

Type of service	Change in units of service per beneficiary		Change in volume per beneficiary		Share of 2017 allowed charges
	Average annual 2012-2016	2016-2017	Average annual 2012-2016	2016-2017	
All services	0.7%	1.3%	1.0%	1.6%	100.0%
Evaluation and management	0.2	0.6	1.0	1.2	52.8
Office/outpatient services	1.0	0.5	1.6	1.0	26.9
Hospital inpatient services	-1.8	-1.2	-1.5	-0.5	11.5
Emergency department services	0.4	-0.8	1.2	0.0	3.3
Nursing facility services	1.9	1.0	2.6	2.1	3.0
Ophthalmological services	-0.2	-0.1	0.1	0.2	2.8
Behavioral health services	N/A	3.0	N/A	2.9	1.9
Critical care services	0.9	3.9	0.9	3.8	1.5
Care management/coordination	20.1	31.7	30.3	40.7	0.8
Observation care services	8.2	0.7	7.9	1.1	0.7
Home services	-0.6	-3.6	-0.5	-3.4	0.3
Imaging	0.2	1.4	-0.2	1.3	11.4
Standard X-ray	-0.8	0.8	-0.3	-0.1	3.0
Ultrasound	-0.1	-0.1	-1.3	-0.1	3.0
CT	3.0	4.8	2.7	4.9	2.1
MRI	1.9	2.4	1.3	2.3	1.3
Nuclear	-3.8	-1.4	-3.8	1.0	1.3
Major procedures	0.5	0.6	2.2	2.1	7.8
Musculoskeletal	2.4	1.3	3.2	2.2	2.9
Vascular	-1.1	0.0	8.0	9.5	1.3
Cardiovascular	1.5	2.0	1.6	0.5	1.0
Other organ systems	-1.1	0.3	-0.6	0.4	1.0
Digestive/gastrointestinal	-2.7	-1.5	-1.9	-1.4	0.8
Skin	0.4	-0.4	0.1	-0.9	0.5
Eye	-0.5	-1.8	-0.4	-1.7	0.2
Other procedures	1.8	2.4	1.4	2.1	23.1
Skin	1.6	0.8	1.7	1.3	4.6
Physical, occupational, and speech therapy	5.0	5.8	5.5	6.2	3.9
Musculoskeletal	0.9	0.2	1.3	2.6	2.6
Eye	1.5	2.1	1.0	1.5	2.4
Radiation oncology	-1.8	3.5	-1.4	2.3	2.0
Other organ systems	0.7	1.5	2.4	2.5	1.7
Digestive/gastrointestinal	-0.5	-0.3	0.1	0.0	1.3
Dialysis	-1.4	-1.7	0.2	-0.3	1.2
Vascular	-0.7	-0.5	3.2	2.7	1.1
Chiropractic	-1.9	-2.6	-2.0	-2.7	0.8
Injections and infusions: non-oncologic	-2.5	-0.7	-2.5	-0.8	0.5
Chemotherapy administration	-3.3	-4.9	-3.2	-5.7	0.5
Tests	0.3	1.2	-0.2	2.4	4.6
Anatomic pathology	-0.2	1.0	-0.4	1.7	1.3
Cardiography	-0.8	1.3	-1.6	4.2	1.3
Neurologic	1.7	0.3	0.7	1.8	0.9

Note: FFS (fee-for-service), CT (computed tomography), MRI (magnetic resonance imaging), N/A (not available). Volume is measured as units of service multiplied by each service's relative value units (RVUs) from Medicare's fee schedule for physicians and other health professionals. To put service use in each year on a common scale, we used the RVUs for 2017. For billing codes not used in 2017, we imputed RVUs based on the average change in RVUs for each type of service. Use of behavioral health services is not reported for 2012 to 2016 because of a change in billing codes implemented in 2013. Some low-volume categories are not shown but are included in the summary calculations. Totals may not sum due to rounding.

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

**FIGURE
4-5****Growth in the volume of
clinician services per FFS
beneficiary, 2000-2017**

Note: FFS (fee-for-service). E&M (evaluation and management). Volume growth for E&M from 2009 to 2010 is not directly observable because of a change in payment policy for consultations. To compute cumulative volume growth for E&M through 2017, we used a growth rate for 2009 to 2010 of 1.85 percent, which is the average of the 2008 to 2009 growth rate of 1.7 percent and the 2010 to 2011 growth rate of 2.0 percent. The type-of-service categories were restructured starting with the growth rates for 2016.

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

services and for broad service categories were higher than the average annual growth rates from 2012 to 2016, except for major procedures (2.1 percent increase in 2017 vs. 2.2 percent average annual growth from 2012 to 2016).

Subcategories of a broad service category sometimes experienced more rapid volume growth in 2017 than the broad service category. For example, volume growth in the other procedures category was 2.1 percent, but volume growth in the subcategory of physical, occupational, and speech therapy was 6.2 percent (physical therapy accounted for most of this growth).

Some service subcategories exhibited large increases in intensity. For example, within major procedures, the vascular procedures subcategory had no change in units of service in 2017 but a 9.5 percent increase in volume. The difference was due to rapid growth of angioplasty and

other procedures to treat peripheral artery disease (PAD) in the lower extremities. These procedures have higher RVUs than other procedures in the same subcategory.

Among the service subcategories, care management/coordination had the highest rate of volume growth: 30.3 percent per year from 2012 to 2016 and 40.7 percent in 2017. However, this subcategory had a very low level of volume in 2012 (data not shown). CMS created new billing codes for transitional care management (TCM) in 2013 and chronic care management (CCM) in 2015. In 2016, CMS established a billing code for monthly enhanced oncology services for the Oncology Care Model (OCM). The OCM, CCM, and TCM services account for most of the growth in care management/coordination. In 2017, the volume of OCM services increased by 147.8 percent, CCM increased by 59.9 percent, and TCM increased by 19.4 percent (data not shown). At the same time, the volume of the other services in this subcategory (physician certification and recertification of home health care, home health care supervision, and hospice care supervision) decreased by 2.8 percent (data not shown). Although care management/coordination experienced high volume growth, it accounts for less than 1 percent of total fee schedule spending.

While volume growth for imaging in 2017 was slightly lower than the average increase for all services and follows a slight decrease from 2012 to 2016, use of imaging services remains much higher than it was in 2000 (Figure 4-5). Cumulative growth in the volume of imaging per beneficiary from 2000 to 2017 totaled 75 percent, which was much higher than cumulative growth during the same period for major procedures and E&M services (47 percent and 45 percent, respectively). In addition, volume increases in 2017 were higher for certain types of imaging than others. For example, in 2017, the volume of CT grew 4.9 percent (Table 4-7, p. 109). By contrast, from 2012 to 2016, average annual volume growth of CT was 2.7 percent. Similarly, in 2017, MRI volume increased 2.3 percent, compared with an average annual increase from 2012 to 2016 of 1.3 percent (Table 4-7, p. 109).

In response to concerns about overuse of imaging, tests, and procedures, the American Board of Internal Medicine (ABIM) Foundation developed the “Choosing Wisely” campaign. As part of this ongoing effort, more than 80 specialty societies have identified over 550 tests and procedures that are often overused (ABIM Foundation 2016). The goal of Choosing Wisely is to promote

and inform conversations between clinicians and their patients about appropriate tests and treatments. As part of Choosing Wisely, the Society for Vascular Medicine has cautioned that patients with PAD usually do not need to have a procedure (ABIM Foundation 2017). Nevertheless, the number of procedures to treat PAD in the lower extremities grew rapidly in 2017.

In addition, CMS is developing the Appropriate Use Criteria (AUC) Program that will require clinicians to use clinical decision support (CDS) software when they order advanced diagnostic imaging services for beneficiaries. Under this program, clinicians who order these services will need to consult with CDS software and obtain feedback on whether the services adhere to AUC developed by medical societies or other provider-led entities. CMS is in the process of developing this program, which is scheduled to begin on January 1, 2020.

Volume changes reflect shift in billing from freestanding offices to hospitals

Measuring volume growth as units of service multiplied by each service's RVUs has two advantages. First, volume growth accounts for changes not just in the number of services but also in the intensity of services (e.g., substitution of CT scans for X-rays). Second, volume growth is important because it has a significant impact on spending growth, along with changes in payment rates.

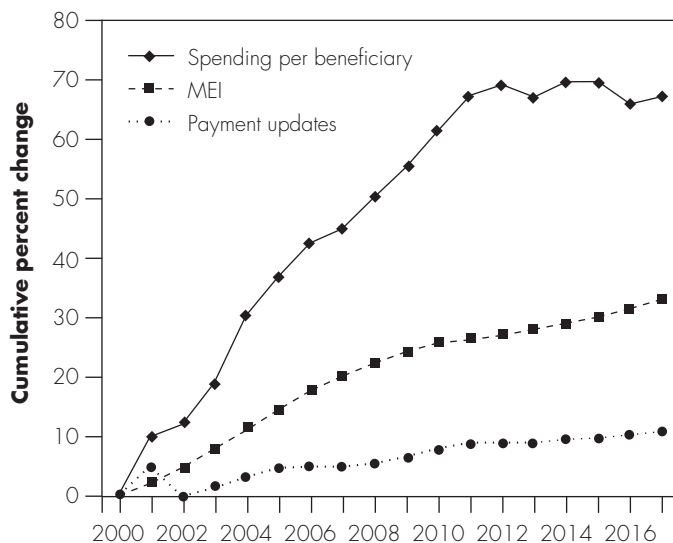
Volume growth, however, is sensitive to shifts in the site of care. The RVUs used to calculate volume include practice expenses, which are often lower for services provided in a facility setting, such as an HOPD, compared with services in a nonfacility setting, such as a freestanding office. In 2018, for example, the most common type of E&M office/outpatient visit for an established patient (Current Procedural Terminology code 99213) had an average nonfacility fee schedule payment of \$74.⁷ By contrast, the average fee schedule payment for this visit when provided in a facility setting was \$52 because the practice expense RVUs are lower. Thus, the shift of E&M office/outpatient visits from freestanding offices to HOPDs reduces volume growth because the RVUs are lower for these services when they are delivered in HOPDs.

Medicare makes both a fee schedule payment and a facility payment when a service is provided in an HOPD (the facility payment accounts for the cost of the service in an HOPD). However, the program makes only a fee schedule payment when a service is furnished in

a freestanding office. For example, in 2018, the total payment for the most common E&M office/outpatient visit for an established patient when provided in an HOPD (other than certain off-campus HOPDs) was \$166 (\$52 for the fee schedule payment to the clinician plus \$114 for the facility payment to the HOPD) compared with \$74 (the nonfacility fee schedule payment) for this visit when provided in a freestanding office.

In recent years, there has been a trend toward billing for some services in hospitals instead of freestanding offices. From 2013 to 2017, for example, the number of outpatient hospital-based E&M visits per beneficiary grew by 19.4 percent, compared with a 3.5 percent decline in physician office-based E&M visits. During the same period, the number of chemotherapy administration services per beneficiary delivered in HOPDs grew 28.7 percent, while the number provided in physician offices declined 13.1 percent. This change in the billed setting increases overall Medicare program spending and beneficiary cost sharing because Medicare generally pays more for the same or similar services in HOPDs than in freestanding offices (Medicare Payment Advisory Commission 2014, Medicare Payment Advisory Commission 2013, Medicare Payment Advisory Commission 2012). For example, we estimate that the Medicare program spent \$1.9 billion more in 2017 than it would have if payment rates for E&M office/outpatient visits in HOPDs were the same as freestanding office rates. In addition, beneficiaries' cost sharing for E&M office/outpatient visits in HOPDs was \$480 million higher in 2017 than it would have been had payment rates been the same in both settings.

To address the increased spending that results when services shift from freestanding offices to HOPDs, the Commission recommended adjusting payment rates in the outpatient prospective payment system (OPPS) so that Medicare pays the same amount for E&M office/outpatient visits in freestanding physician offices and HOPDs (Medicare Payment Advisory Commission 2012). As of 2019, Medicare pays a comparable amount for E&M office/outpatient visits in freestanding physician offices and off-campus HOPDs; however, Medicare continues to pay a higher amount for these visits when provided in on-campus HOPDs.⁸ The Commission also recommended adjusting OPPS rates for services in ambulatory payment classification (APC) groups that meet certain criteria so that payment rates are equal or more closely aligned between HOPDs and freestanding offices (Medicare Payment Advisory Commission 2014).⁹

**FIGURE
4-6****Growth in the volume of clinician services caused fee schedule spending to increase faster than input prices and payment updates, 2000–2017**

Note: MEI (Medicare Economic Index). The MEI measures the change in clinician input prices. Spending per beneficiary includes only services paid under the fee schedule for physicians and other health professionals and excludes services paid under the clinical laboratory fee schedule.

Source: 2018 annual report of the Boards of Trustees of the Medicare trust funds; Centers for Medicare & Medicaid Services 2017; Clemens 2014.

APCs that meet these criteria are those that are unlikely to have costs associated with operating an emergency department; do not have extra costs associated with higher patient complexity in HOPDs; and include services that are frequently performed in physicians' offices (which indicates that these services are likely safe and appropriate to provide in a physician's office).

Volume growth has contributed to an increase in spending, 2000 to 2017

The growth in service volume has contributed significantly to an increase in spending for fee schedule services (Figure 4-6). From 2000 to 2017, payment updates for these services did not keep pace with growth in input prices. Payment updates increased cumulatively by 11 percent—less than the 33 percent cumulative increase in the Medicare Economic Index (MEI), which measures changes in input prices. However, spending per beneficiary for these services grew at a cumulative rate of 67 percent.

Volume growth, which accounts for most of the difference between the payment updates and spending growth, is influenced, among other things, by changes in clinical practice, such as the diffusion of new technologies. It may also be related to an increase in the treated prevalence (the share of the population receiving treatment) of many chronic conditions. For example, rapid growth in the proportion of beneficiaries treated for five or more chronic conditions between 1987 and 2002 fueled an increase in Medicare spending during this period (Thorpe and Howard 2006). Reasons for growth in the treated prevalence of chronic conditions included higher rates of obesity, advances in technology for diagnosing and treating conditions, and changes in the definition of some diseases (Medicare Payment Advisory Commission 2007). Volume growth could also reflect changes in the demographic status of beneficiaries, although the effect of changes in age and sex on Medicare spending for physician and other health professional services has generally been small in the recent past, and spending on physician services varies less by age than spending for other services, such as inpatient hospital and post-acute care.

In 2017, per beneficiary spending for fee schedule services increased slightly, by 0.8 percent.¹⁰ Several factors influenced this increase: the small increase in volume (1.6 percent), the small increase in the fee schedule conversion factor (0.5 percent), a larger penalty for clinicians who did not meet the electronic health record (EHR) meaningful use requirement, and smaller incentive payments for clinicians who met the EHR meaningful use requirement.¹¹

Quality of care

For the past decade, CMS has assessed the quality of Medicare-billing physicians and other health professionals based largely on clinician-reported individual quality measures and clinician attestation of participation in certain activities. In 2019, CMS is implementing the Merit-based Incentive Payment System (MIPS), which entails clinician-level payment adjustments based on these clinician-reported and -attested quality measures and participation activities (see text box for first year results, pp. 114–115).

The Commission has established a set of principles for quality measurement in Medicare; we believe that the MIPS measures are neither effective in assessing true clinician quality nor appropriate for Medicare's value-based purchasing programs. Specifically, quality

**TABLE
4-8****Medicare FFS CAHPS® performance rates, 2013–2017**

CAHPS composite measure	2013	2014	2015	2016	2017
Getting needed care and seeing specialists	87%	86%	85%	84%	84%
Getting appointments and care quickly	75	76	75	77	77
Care coordination (e.g., personal doctor always or usually discusses medication, has relevant medical records, helps with managing care)	86	86	85	86	86
Rating of health plan (FFS Medicare)	85	84	82	84	83
Rating of health care quality	86	86	86	85	85

Note: FFS (fee-for-service), CAHPS® (Consumer Assessment of Healthcare Providers and Systems®). Questions in rows 1 to 3 have responses of “Never,” “Sometimes,” “Usually,” and “Always.” CMS converts these to a linear mean score on a 0 to 100 scale. Questions in rows 4 and 5 have responses of 1 to 10 (which CMS converts to a linear mean score on a 0 to 100 scale). “Plan” in the fourth row refers to the Medicare FFS program.

Source: FFS CAHPS mean scores provided by CMS.

measurement should be patient oriented, encourage coordination across providers and time, and promote change in the delivery system. Medicare quality programs should include population-based measures such as outcomes, patient experience, and value. Along these lines, this chapter reports three measures assessing the ambulatory care environment for Medicare FFS beneficiaries: patient experience (measured using the Consumer Assessment of Health Providers and Systems® (CAHPS®)), population-based measures assessing avoidable hospitalizations for ambulatory care–sensitive conditions, and rates of low-value care in Medicare.

Patient experience measures

The CAHPS surveys are a suite of surveys that assess patient experience and reported access. CAHPS results for Medicare Advantage plans are used in the Part C and Part D star ratings that are intended to measure quality in the Medicare Advantage program, and a CAHPS survey module is issued to a sample of beneficiaries in the FFS Medicare population.

Overall, how Medicare FFS beneficiaries rated their health care quality and reported their ability to get care quickly was generally stable between 2013 and 2017, although there was a slight decline in reporting that they could get needed care and see specialists (Table 4-8). There was also a slight decline in beneficiaries’ ratings of their health plans and health care quality.

Avoidable hospitalizations

To assess rates of avoidable hospitalizations for ambulatory care–sensitive conditions, we use the Prevention Quality Indicators (PQIs), a set of population-based measures of potentially avoidable hospital admissions developed by the Agency for Healthcare Research and Quality. The PQIs, which are based on national data, can help gauge the quality of a community’s ambulatory care environment. Lower rates can be one indication of higher quality. However, this measure is also sensitive to secular trends over time in the site of care.

Figure 4-8 (p. 116) presents results for three common conditions among the Medicare population—diabetes, congestive heart failure, and bacterial pneumonia. Consistent with prior years, the rates show general declines across all three conditions and the age categories, likely due to continuing declines in inpatient admissions. The modest increase for heart failure may be the result of CMS dramatically reducing its frequency of challenges to the medical necessity of short-stay cases.

The Commission plans to continue to refine a set of population-based outcome measures that Medicare can calculate using claims data.

Low-value care

Low-value care is the provision of a service that has little or no clinical benefit or care in which the risk of harm

The Merit-based Incentive Payment System year 1 results

As of 2019, the Merit-based Incentive Payment System (MIPS) adjusts payments in fee-for-service (FFS) Medicare at the individual clinician level based on performance in four areas: quality; resource use; clinical practice improvement activities; and advancing care information (formerly meaningful use of electronic health records) (Centers for Medicare & Medicaid Services 2016).

The payment changes that take place in 2019 are based on clinician performance in 2017. On November 8, 2018, CMS released the initial summary of MIPS performance data that will underlie the payment adjustments in 2019.

For the first year of the program, CMS made a number of discrete policy decisions to reflect a phased approach to implementation, which CMS refers to as “Pick Your Pace.” Specifically, CMS used its regulatory authority to:

- Set the MIPS performance threshold at 3 points (out of 100). Clinicians with a score above 3 are to receive a neutral or positive payment adjustment, and clinicians with a score of 3 or below are to receive a negative payment adjustment.
- Set the MIPS exceptional performance bonus threshold at 70 points (out of 100).

- Permit clinicians to meet the 3-point MIPS performance threshold by reporting minimal information on one quality measure (or attesting to one performance activity).
- Weight the cost component at 0 points.

Because the basic MIPS payment adjustments must be weighted to be budget neutral, the decision to set the performance threshold very low means that the payment increases will be very small (because there will be many clinicians meeting or exceeding the thresholds). The exceptional performance bonus is not budget neutral and will linearly increase for clinicians at a certain threshold above the MIPS threshold.

In the first year of the program, just over 1 million MIPS-eligible clinicians (including physicians, nurse practitioners, physician assistants, group practices, and certain other nonphysician practitioners) reported MIPS information (Table 4-9). Most clinicians—over 700,000—reported sufficient information with sufficiently high scores to receive both a positive MIPS adjustment and qualify for the MIPS exceptional performance bonus.

Figure 4-7 illustrates how the MIPS incentive payment works for the first year. In concept, the

**TABLE
4-9**

MIPS performance information for eligible clinicians, 2017

		Number of clinicians	Payment adjustment
Did not report		51,500	-4%
Reported	Minimum required	20,100	0%
	Sufficient data to gain a positive update	221,400	Between 0% and 0.22%
	Sufficient data to gain a positive update and exceptional performance bonus	714,500	Between 0.28% and 1.88%

Note: MIPS (Merit-based Incentive Payment System). This table includes all clinicians who reported MIPS information, even those who may qualify as “low volume” for MIPS purposes or are excluded from Table 4-6 (p. 108).

Source: CMS. <http://qpp.cms.gov>.

(continued next page)

The Merit-based Incentive Payment System year 1 results (cont.)

negative payment adjustment applied to clinicians below the MIPS performance threshold must fund the bonuses applied to clinicians above the MIPS performance threshold. Under these circumstances, performance bonuses this year were predictably small: The maximum MIPS bonus was 0.22 percent. When the exceptional performance bonus was added, the maximum total bonus was 1.88 percent.

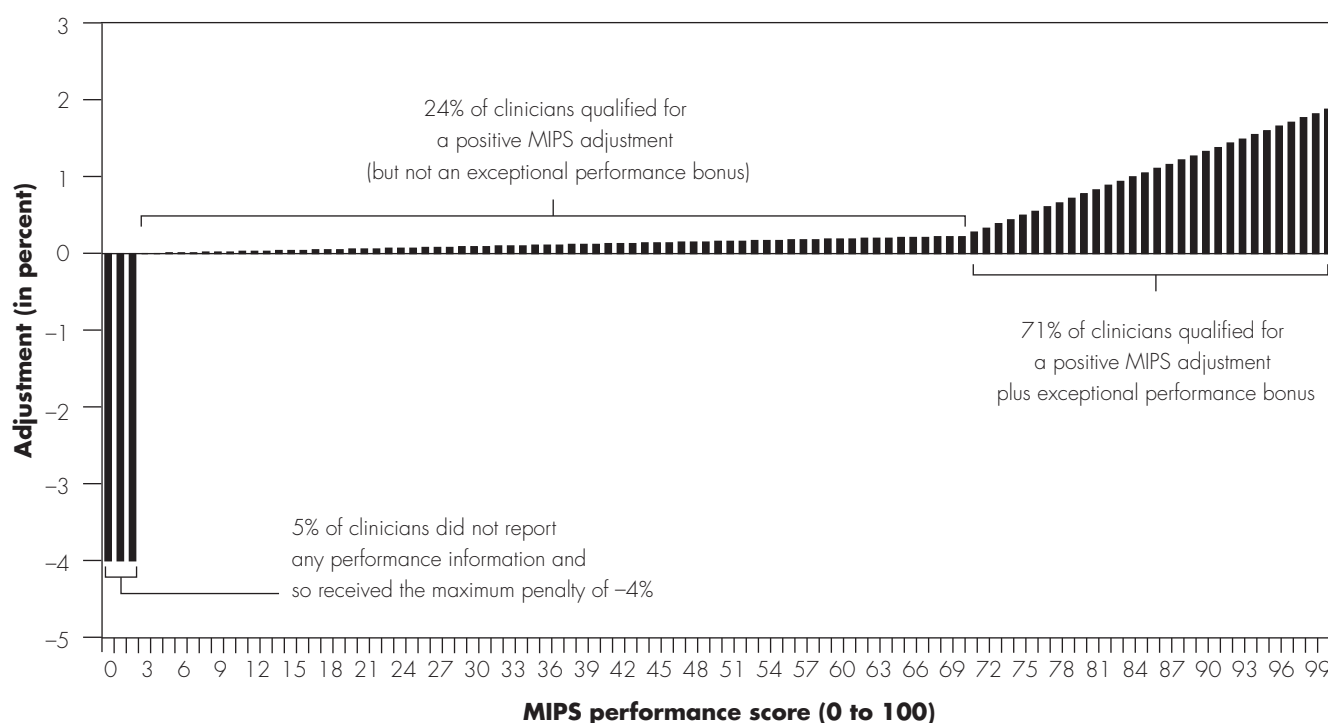
Despite the low performance threshold, because clinicians could choose which measures to report, most clinicians had very high performance scores overall in the first year of the program. Specifically, the mean performance score was 74 points, and the median performance score was 89 points, well in excess of the 3-point threshold for a positive

adjustment and the 70-point threshold for the exceptional performance bonus.

CMS is moving toward meeting an eventual statutory deadline in 2022 to set the MIPS performance score at the mean or median of clinician performance, which will compress the range of positive payment adjustments such that small changes in MIPS performance scores will result in large swings in payment adjustments. In other words, because most clinicians have sufficiently high scores in the first year of the program (with 71 percent qualifying for both a positive payment adjustment and the exceptional performance bonus), the mean or median MIPS performance scores will be very high. ■

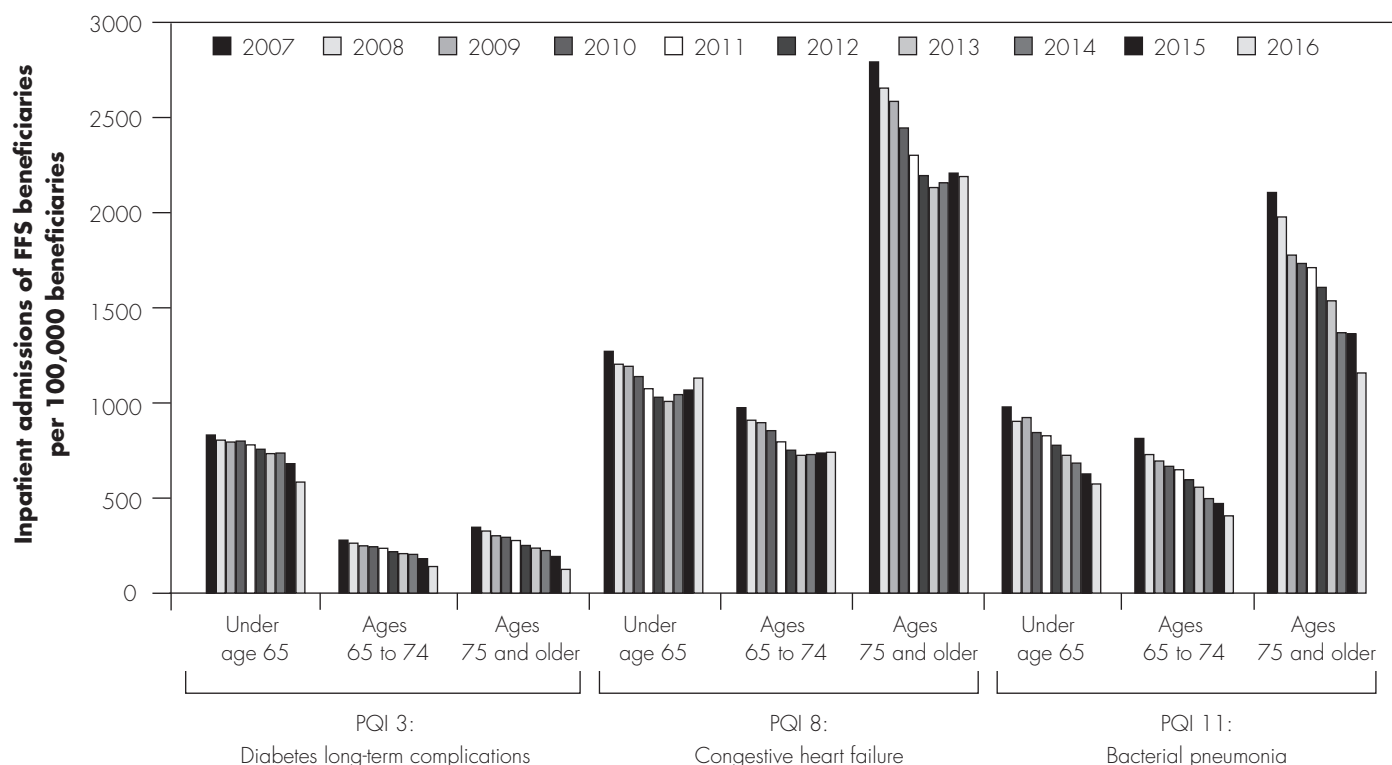
**FIGURE
4-7**

The Merit-based Incentive Payment System adjustments, 2017



Note: MIPS (Merit-based Incentive Payment System).

Source: MedPAC analysis based on data from CMS.

**FIGURE
4–8****Trends in selected PQIs for inpatient admissions of FFS beneficiaries
for ambulatory care-sensitive conditions, 2007–2016**

Note: PQI (Prevention Quality Indicator), FFS (fee-for-service). Figures represent the number of hospital admissions for the identified condition for Medicare beneficiaries in each age range per 100,000 beneficiaries. Only FFS beneficiaries with both Part A and Part B are included. Beneficiaries who died during the year are included.

Source: CMS data on geographic variation. Figures calculated by CMS from the Chronic Conditions Data Warehouse of 100 percent of claims.

from the service outweighs its potential benefit (Chan et al. 2013, Kale et al. 2013). In addition to increasing health care spending, low-value care has the potential to harm patients by exposing them to the risks of injury from inappropriate tests or procedures and may lead to a cascade of additional services that contain risks but provide little or no benefit (Keyhani et al. 2013, Korenstein et al. 2012). Because the current MIPS measure set has few measures assessing low-value care and few clinicians report these measures, the Commission previously used a set of 31 claims-based measures to assess low-value care in Medicare in 2014. Our analysis demonstrated that low-value care was a significant issue in Medicare that year: We found between 34 and 72 instances of low-value care per 100 beneficiaries, depending on whether we used a narrow or broad version of each measure. Between 23

percent and 37 percent of beneficiaries received at least one low-value service, and annual Medicare spending for these services ranged from \$2.4 billion to \$6.5 billion. The spending estimates are conservative because they do not reflect the downstream cost of low-value services (e.g., follow-up tests and procedures). For more information on this analysis, see the Commission's June 2018 report to the Congress (Medicare Payment Advisory Commission 2018).

Medicare payments and providers' costs

Because physicians and other health professionals do not report their costs to the Medicare program, we use other measures to assess the adequacy of Medicare payments relative to clinicians' costs. The first measure is how Medicare's payments compare with the commercial rates

paid by preferred provider organizations (PPOs). The second measure compares physician compensation across specialties and evaluates whether Medicare's fee schedule contributes to an income disparity between primary care clinicians and other specialties. The third measure assesses the change in input prices for physician and other health professional services—the MEI.

Ratio of Medicare payments to commercial PPO payments

In 2017, Medicare's payment rates for physician and other health professional services (including cost sharing) were 75 percent of commercial rates paid by PPOs, unchanged from 2016. The ratio has declined from 81 percent in 2010. The ratio in 2017 varied by type of service. For example, Medicare rates were 80 percent of commercial rates for E&M office visits for established patients but 59 percent of commercial rates for coronary artery bypass graft surgery. This analysis uses data on paid claims for PPO members of a large national insurer that covers a wide geographic area across the United States. The payments reflect the insurer's allowed amount with allowed cost sharing. The data exclude any remaining balance billing and payments made outside of the claims process, such as bonuses or risk-sharing payments.

The ratio of Medicare rates to commercial rates has declined in recent years as commercial rates have risen while Medicare rates have remained relatively stable. The growth of commercial prices could be a consequence of greater consolidation of physician practices, which gives physicians greater leverage to negotiate higher prices with commercial plans. In recent years, an increasing number of physicians have joined larger groups, hospitals, and health systems. For example, between 2009 and 2014, the share of physicians working in practices with more than 50 physicians grew from 16 percent to 22 percent (Medicare Payment Advisory Commission 2017). Recent studies show that commercial prices for physician services are higher in markets with larger physician practices and in markets with greater physician–hospital consolidation (Baker et al. 2014, Clemens and Gottlieb 2017, Neprash et al. 2015). Our own research found that independent practices with larger market shares and hospital-owned practices received higher commercial prices for E&M visits than other practices in their market (Medicare Payment Advisory Commission 2017). For example, independent practices with a large market share of E&M visits received an average commercial price for an E&M visit that was 41 percent higher than the Medicare rate.

By contrast, the average commercial price received by the smallest independent practices for an E&M visit was about equal to Medicare's rate. These findings indicate that the ratio of Medicare rates to commercial rates for physician services varies by practice size within the same market because larger practices can obtain higher prices from commercial payers than smaller practices. In addition to varying within markets, evidence suggests that commercial prices for physician services vary widely across markets. A study by the Congressional Budget Office found that the average ratio of commercial prices to Medicare prices for 20 common services was at least 70 percent higher in the most costly market than in the least costly market (Congressional Budget Office 2018).

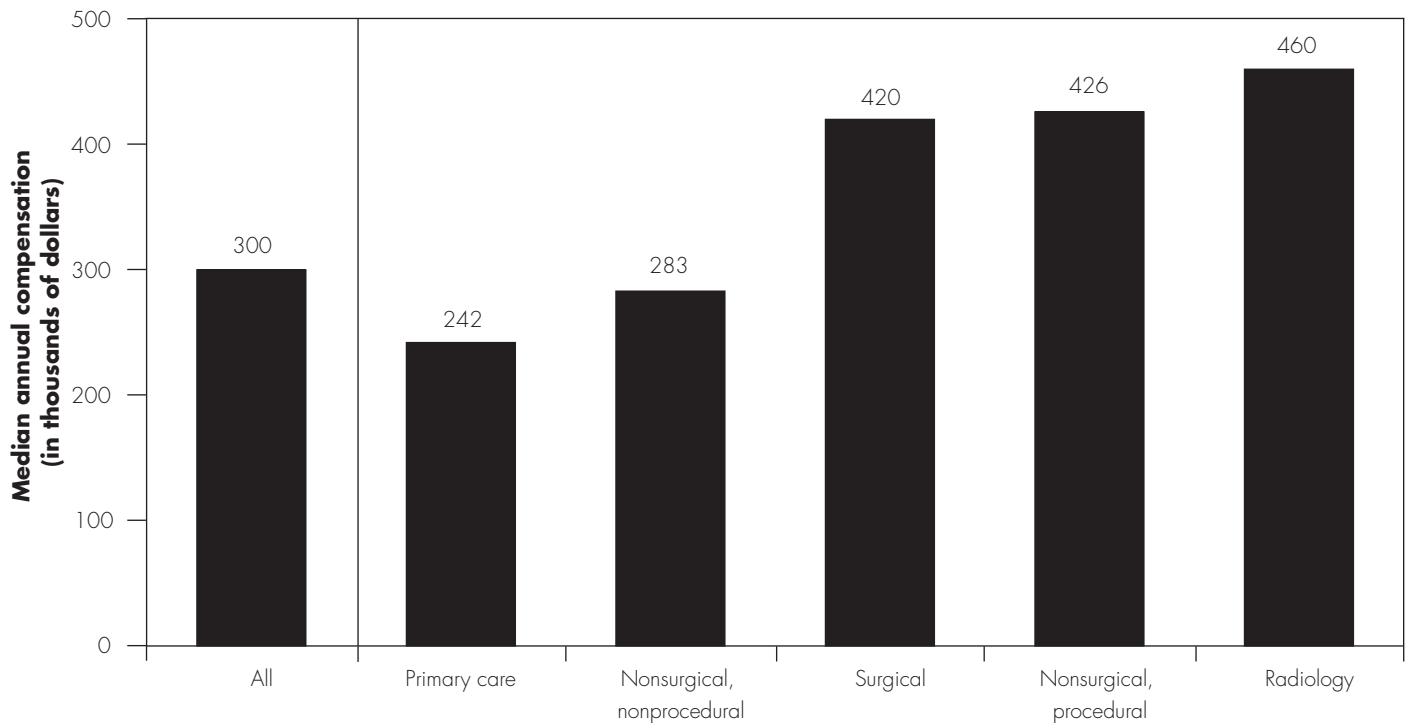
Compensation is much higher for certain specialties than for primary care

The Commission remains concerned that ambulatory E&M visits, which make up a large share of the services provided by primary care clinicians and certain other specialties (e.g., psychiatry, endocrinology, and rheumatology), are underpriced in the fee schedule relative to other services, such as procedures (Medicare Payment Advisory Commission 2018).¹² This factor contributes to an income disparity between primary care physicians and certain specialists.

For an analysis of the compensation received from all payers by physicians—the largest subset of practitioners—the Commission contracted with the Urban Institute, working in collaboration with SullivanCotter. The contractor calculated median compensation based on 2017 data from SullivanCotter's Physician Compensation and Productivity Survey. Median compensation across all specialties was \$300,000 in 2017. Compensation was much higher for some specialties than others. The specialty groups with the highest median compensation were radiology (\$460,000); the nonsurgical, procedural group (\$426,000); and surgical specialties (\$420,000) (Figure 4-9, p. 118).¹³ Median compensation for radiology was 90 percent higher than median compensation for primary care (\$242,000), and median compensation for nonsurgical, procedural specialties was 76 percent higher than that of primary care. Psychiatry—which is in the nonsurgical, nonprocedural group—had median compensation of \$241,000, slightly lower than primary care physicians (data not shown).¹⁴ Previous Commission work using data from the Medical Group Management Association (MGMA) showed that such disparities also existed when compensation was observed on an hourly

**FIGURE
4-9**

Disparities in physician compensation are widest when primary care physicians are compared with radiologists, nonsurgical proceduralists, and surgeons, 2017



Note: Figure includes all physicians who reported their annual compensation in the survey (76,336).

Source: Urban Institute 2018.

basis, thus accounting for variations in hours worked per week.¹⁵ From 2013 to 2017, median compensation for primary care physicians and surgeons increased at a cumulative rate of 15.4 percent, slower than nonsurgical, procedural specialties (17.9 percent) and nonsurgical, nonprocedural specialties (16.2 percent) but faster than radiology (9.6 percent) (data not shown).¹⁶ Across all specialty groups, median compensation grew 15.9 percent during this period.

Three of the four specialty groups with higher annual compensation than primary care also generated more work RVUs per year.¹⁷ For example, in 2017, median compensation for radiology was nearly double the median compensation for primary care, and radiology had the highest median number of cumulative work RVUs per physician (8,862)—83 percent higher than the median

number of work RVUs per physician generated by primary care (4,833) (Table 4-10). Median compensation for surgical specialties was 76 percent higher than median compensation for primary care, and their median number of work RVUs was 46 percent higher than primary care. Because primary care physicians are more likely to focus on ambulatory E&M services than the other specialty groups and because these services tend to have lower work RVUs than other services, the fee schedule's RVUs for ambulatory E&M services may be an important source of the disparities in compensation between primary care and other specialty groups.

The fee schedule's work RVUs, which account for the amount of work required to provide a service, are based on an assessment of how much time and intensity (e.g., mental effort and technical skill) services require relative

**TABLE
4-10****Most specialty groups with higher median annual compensation than primary care generate a higher median number of work RVUs than primary care, 2017**

Specialty group	Median number of annual work RVUs per physician	Ratio of median annual compensation for specialty group to median compensation for primary care
Radiology	8,862	1.99
Surgical	7,070	1.76
Nonsurgical, procedural	6,395	1.80
Primary care	4,833	1.00
Nonsurgical, nonprocedural	4,554	1.19

Note: RVU (relative value unit). The table includes only physicians who reported both their annual compensation and their annual number of work RVUs in the survey (44,605).

Source: Urban Institute 2018.

to one another. If estimates of time and intensity are not kept up to date, especially for services that experience efficiency improvements, the work RVUs become inaccurate. Because of advances in technology, technique, and clinical practice, efficiency improves more easily for procedures, imaging, and tests than for ambulatory E&M services, which are composed largely of activities that require the clinician's time and so do not lend themselves to efficiency gains. When efficiency gains reduce the amount of work needed for a service, the work RVUs for the affected services should decline accordingly. Under the budget-neutral fee schedule, a reduction in the RVUs of these services would raise the RVUs for all other services, such as ambulatory E&M services. Because of problems with the process of reviewing overpriced services and the data used to set prices, such as the lack of current and objective data on clinician work time and practice expenses, this two-step sequence tends not to occur (Medicare Payment Advisory Commission 2018). Therefore, ambulatory E&M services become passively devalued over time.

The Commission is concerned that this mispricing could lead to problems with beneficiary access to E&M services and, over the longer term, could even influence the pipeline of physicians in specialties that tend to provide a large share of these services. The Commission has made previous recommendations to improve the accuracy of the data used to set RVUs and to rebalance the fee schedule toward primary care by establishing a per beneficiary payment for primary care practitioners (see text box, pp. 120–121).

Input costs for physicians and other health professionals are projected to increase from 2019 to 2020

The MEI measures the change in the market basket of input prices for physician and other health professional services and is adjusted for economy-wide productivity.¹⁸ As of the third quarter of 2018, CMS's forecast is that the MEI will increase by 2.4 percent in 2020. This projection is subject to change.

How should Medicare payments change in 2020?

The Commission's deliberations on payment adequacy for physician and other health professional services are informed by beneficiary access to services, volume growth, quality, and input prices for clinician services. We find that, on the basis of these indicators, payments appear adequate.

On measures of access to the services of physicians and other health professionals, the Commission continues to find that beneficiaries' access to care appears generally stable. Overall, Medicare beneficiaries generally have comparable or slightly better access to clinician services than privately insured individuals ages 50 to 64. A slight decline in the number of physicians per beneficiary was offset by an increase in the number of advanced practice

Previous Commission recommendations to improve the accuracy of data for setting relative value units and establish a per beneficiary payment for primary care clinicians

The Commission has a long-standing concern that ambulatory evaluation and management (E&M) services, which make up a large share of the services provided by primary care clinicians and certain other specialties (e.g., psychiatry, endocrinology, and rheumatology), are underpriced in the fee schedule for physician and other health professional services compared with other services, such as procedures (Medicare Payment Advisory Commission 2018). Validation of the relative value units (RVUs) in the fee schedule could help correct the fee schedule's inaccuracies and ensure that ambulatory E&M visits—such as office visits, hospital outpatient department visits, nursing facility visits, and home visits—are not underpriced. Addressing this mispricing could also reduce disparities in compensation among specialties.

In 2011, the Commission recommended that CMS use a streamlined method to regularly collect data from a cohort of efficient clinician practices—including service volume and work time—to establish more accurate work and practice expense RVUs (Medicare Payment Advisory Commission 2011a, Medicare Payment Advisory Commission 2011b). These data

should be used to calculate the amount of time that a clinician worked over the course of a week or month and compare it with the time estimates in the fee schedule for all of the services that the clinician billed over the same period. If the fee schedule's time estimates exceed the actual time worked, this finding could indicate that the time estimates—and, hence, the work RVUs—are too high. CMS could use this approach to identify groups of services that are likely overpriced, carefully review those services, and adjust the work RVUs accordingly.

Practice expense RVUs—which account for the cost of operating a practice—are based on data from a survey of total practice costs incurred by nearly all specialty groups. Because this survey was conducted in 2007 and 2008, practice expense RVUs are not likely to reflect current practice costs. CMS has not developed a strategy for updating practice cost data. However, CMS could regularly collect data on total practice costs along with data on service volume and work time from a cohort of efficient practices, as the Commission recommended in 2011 (Medicare Payment Advisory Commission 2011a).

(continued next page)

registered nurses and physician assistants per beneficiary, and the share of providers enrolled in Medicare's participating provider program remains high.

In 2017, across all services, volume per beneficiary grew 1.6 percent. Among broad service categories, growth rates were 1.2 percent for E&M, 1.3 percent for imaging services, 2.1 percent for major procedures, 2.1 percent for other procedures, and 2.4 percent for tests.

As of the third quarter of 2018, input prices for physicians and other health professionals were projected to increase by 2.4 percent in 2020. In 2017, compensation was much lower for primary care physicians than for physicians in certain specialties, which raises concerns about fee schedule mispricing and its impact on primary care.

Update recommendation

In recommending an update for physicians and other health professionals, the Commission balanced the following objectives:

- maintaining beneficiary access to physician and other health professional services;
- minimizing the burden on taxpayers and beneficiaries, who finance the Medicare program; and
- ensuring adequate payments for the efficient provision of services.

In balancing these objectives with the overall findings that payments appear adequate, the Commission recommends an update for 2020 consistent with current law.

Previous Commission recommendations to improve the accuracy of data for setting relative value units and establish a per beneficiary payment for primary care clinicians (cont.)

In addition to concern about the mispricing of ambulatory E&M services, the Commission is also concerned that the fee schedule—with its orientation toward discrete services that have a definite beginning and end—is not well designed to support primary care, which requires ongoing care coordination for a panel of patients. Consequently, in 2015, the Commission recommended that the Congress establish a per beneficiary payment for primary care clinicians to replace the expired Primary Care Incentive Payment (PCIP) program, which provided a 10 percent bonus payment on fee schedule payments for certain E&M visits provided by primary care clinicians (Medicare Payment Advisory Commission 2015). A monthly per beneficiary payment based on the total amount of PCIP payments in 2015 would initially amount to about \$2.35. The Commission recommended that the additional payments to primary care clinicians be in the form of a per beneficiary payment to move away from the approach of paying separately for each discrete service. The payment would provide funds to support the investment in infrastructure and staff that facilitate care management and care coordination. Funding for the per beneficiary payment would come from reducing payment rates for all services in the fee schedule other than ambulatory E&M visits provided by any clinician.

This method of funding would be budget neutral and would help rebalance the fee schedule toward primary care clinicians.

In the Commission's June 2018 report, we described another budget-neutral approach to rebalance the fee schedule that would increase payment rates for ambulatory E&M services while reducing payment rates for other services (e.g., procedures, imaging, and tests) (Medicare Payment Advisory Commission 2018). Under this approach, the increased payment rates would apply to ambulatory E&M services provided by all clinicians, regardless of specialty, and would not change the current fee-for-service system. This change would be a one-time price adjustment to the fee schedule to address several years of passive devaluation of ambulatory E&M services. We modeled the impact of a 10 percent payment rate increase for ambulatory E&M services, although a higher or lower increase could be considered. A 10 percent increase would raise annual spending for ambulatory E&M services by \$2.4 billion. To maintain budget neutrality, payment rates for all other fee schedule services would be reduced by 3.8 percent. These payment changes could be implemented in one year or phased in gradually over multiple years. ■

RECOMMENDATION 4

For calendar year 2020, the Congress should increase the calendar year 2019 Medicare payment rates for physician and other health professional services by the amount specified in current law.

RATIONALE 4

The Medicare Access and CHIP Reauthorization Act of 2015 established a set of statutory updates for clinicians, including no statutory update for calendar year 2020. Overall, access to clinician services for Medicare beneficiaries appears stable and comparable with that for privately insured individuals. Other measures of

payment adequacy are stable and consistent with prior years. Therefore, the Commission does not see a reason to diverge from the current-law policy of no update for 2020.

IMPLICATIONS 4

Spending

- No change as compared with current law.

Beneficiary and provider

- The Commission's recommendation of the current-law update should not affect beneficiaries' access to care or providers' willingness and ability to furnish care. ■

Endnotes

- 1 For further information, see the Commission's *Payment Basics: Physician and Other Health Professionals Payment System* at http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_physician_final_sec.pdf?sfvrsn=0.
- 2 This year's survey results continue to be largely consistent with other surveys of Medicare beneficiaries and privately insured individuals.
- 3 In this section, the category *White* refers to those not of Hispanic origin. See the U.S. Census Bureau's "Explanation of Race and Hispanic Origin Categories" at <https://www.census.gov/population/estimates/rho.txt>.
- 4 Primary care physicians include specialties that were eligible for the Primary Care Incentive Payment Program: family medicine, internal medicine, pediatric medicine, and geriatric medicine. In 2017, CMS introduced a new physician specialty code for hospitalists. Most of the physicians who billed Medicare as hospitalists in 2017 billed as a primary care specialty in 2016. Therefore, to maintain consistency across years, we assigned physicians who billed as hospitalists in 2017 to the primary care physicians group for this analysis.
- 5 The number of beneficiaries used to calculate the ratio of physicians and other health professionals per 1,000 beneficiaries includes those in FFS Medicare and Medicare Advantage because we assume that clinicians are furnishing services to beneficiaries covered under either program.
- 6 Services that are less likely to be assigned include osteopath services and chiropractor services (although the assignment rates are still about 90 percent for both service types).
- 7 When this type of visit is provided in an HOPD, it is billed as Healthcare Common Procedure Coding System code G0463.
- 8 Section 603 of the Bipartisan Budget Act of 2015 prohibits HOPDs that began billing under the OPSS on or after November 2, 2015, and are located off a hospital campus from billing under the OPSS after January 1, 2017. In 2018, the facility payment rate for services provided at these off-campus HOPDs was equal to 40 percent of the rate under the OPSS. On-campus HOPDs; off-campus HOPDs that began billing before November 2, 2015; and dedicated emergency departments are permitted to continue billing under the OPSS. However, as of 2019, Medicare pays all off-campus HOPDs (regardless of when they began billing under the OPSS) an amount equal to 40 percent of the OPSS rate for office/outpatient E&M visits.
- 9 For the OPSS, CMS classifies services into APC groups on the basis of clinical and cost similarity; all services within an APC group have the same payment rate.
- 10 This figure is based on incurred spending, rather than cash spending, for fee schedule services. Cash spending for fee schedule services declined slightly between 2016 and 2017 because of a lag between incurred and cash spending.
- 11 Between 2016 and 2017, the penalty for clinicians who did not meet the EHR meaningful use requirement grew from 2 percent of payments to 3 percent of payments, and the total amount of incentive payments for clinicians who met the EHR meaningful use requirement dropped from \$932 million to \$437 million. The penalties and incentive payments under the EHR program are mandated by statute.
- 12 Ambulatory E&M services include visits in offices, hospital outpatient departments, certain other settings such as nursing facilities, and patients' homes.
- 13 The nonsurgical, procedural specialties in the analysis are cardiology, dermatology, gastroenterology, pulmonary medicine, and hematology/oncology.
- 14 In addition to psychiatry, the nonsurgical, nonprocedural group includes emergency medicine, endocrinology, hospital medicine, nephrology, neurology, physical medicine, rheumatology, and other internal medicine/pediatrics. The primary care specialties in the analysis are family medicine, internal medicine, and general pediatrics.
- 15 To account for differences among specialties in hours worked per week, an earlier analysis based on MGMA data from 2007 included comparisons of hourly compensation. Hourly compensation for nonsurgical, procedural specialties and radiology was more than double the hourly compensation rate for primary care.
- 16 To control for annual changes in survey respondents, the percentage changes are based on a cohort analysis in which the sample was restricted to physicians who were present in both the 2013 and 2017 data.
- 17 The exception was nonsurgical, nonprocedural specialties, which had median annual compensation that was 19 percent higher than primary care but generated 6 percent fewer work RVUs per year than primary care.
- 18 The MEI measures the weighted average annual price change for various inputs used by physicians and other health professionals to furnish services.

References

- ABIM Foundation. 2017. Choosing Wisely: Treating blocked leg arteries. <http://www.choosingwisely.org/wp-content/uploads/2018/02/Treating-Blocked-Leg-Arteries-SVM.pdf>.
- ABIM Foundation. 2016. Choosing Wisely: Facts and figures. <http://www.choosingwisely.org/wp-content/uploads/2016/07/Choosing-Wisely-Facts-and-Figures.pdf>.
- Baker, L. C., M. K. Bundorf, A. B. Royalty, et al. 2014. Physician practice competition and prices paid by private insurers for office visits. *Journal of the American Medical Association* 312, no. 16 (October 22–29): 1653–1662.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017. Market basket data. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareProgramRatesStats/MarketBasketData.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. Medicare program; Merit-based Incentive Payment System (MIPS) and Alternative Payment Model (APM) Incentive under the physician fee schedule, and criteria for physician-focused payment models. Final rule. *Federal Register* 81, no. 214 (November 4): 77008–77831.
- Chan, K. S., E. Chang, N. Nassery, et al. 2013. The state of overuse measurement: A critical review. *Medical Care Research and Review* 70, no. 5 (October): 473–496.
- Clemens, J., and J. Gottlieb. 2017. In the shadow of a giant: Medicare’s influence on private physician payments. *Journal of Political Economy* 125, no. 1 (February): 1–39.
- Clemens, K., Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014. Estimated sustainable growth rate and conversion factor, for Medicare payments to physicians in 2015. Fact sheet. <https://www.cms.gov/medicare/medicare-fee-for-service-payment/sustainablegratesconfact/downloads/sgr2015p.pdf>.
- Congressional Budget Office. 2018. *An analysis of private-sector prices for physicians’ services*. Working paper 2018–01. Washington, DC: CBO.
- Kale, M. S., T. F. Bishop, A. D. Federman, et al. 2013. Trends in the overuse of ambulatory health care services in the United States. *JAMA Internal Medicine* 173, no. 2 (January 28): 142–148.
- Keyhani, S., R. Falk, E. A. Howell, et al. 2013. Overuse and systems of care: A systematic review. *Medical Care* 51, no. 6 (June): 503–508.
- Korenstein, D., R. Falk, E. A. Howell, et al. 2012. Overuse of health care services in the United States: An understudied problem. *Archives of Internal Medicine* 172, no. 2 (January 23): 171–178.
- Medicare Payment Advisory Commission. 2018. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2011a. Moving forward from the sustainable growth rate (SGR) system. Letter to the Congress. October 14.
- Medicare Payment Advisory Commission. 2011b. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2007. *Report to the Congress: Promoting greater efficiency in Medicare*. Washington, DC: MedPAC.
- Neprash, H. T., M. E. Chernew, A. L. Hicks, et al. 2015. Association of financial integration between physicians and hospitals with commercial health care prices. *JAMA Internal Medicine* 175, no. 12 (December): 1932–1939.
- Thorpe, K. E., and D. H. Howard. 2006. The rise in spending among Medicare beneficiaries: The role of chronic disease prevalence and changes in treatment intensity. *Health Affairs* 25, no. 5 (September–October): w378–388.
- Urban Institute. 2018. *Analysis of disparities in physician compensation*. Report prepared for the Medicare Payment Advisory Commission. Washington, DC: MedPAC.

C H A P T E R

5

Ambulatory surgical center services

R E C O M M E N D A T I O N S

- 5-1** The Congress should eliminate the calendar year 2020 update to the Medicare conversion factor for ambulatory surgical centers.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....

- 5-2** The Secretary should require ambulatory surgical centers to report cost data.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Ambulatory surgical center services

Chapter summary

Ambulatory surgical centers (ASCs) provide outpatient procedures to patients who do not require an overnight stay after the procedure. In 2017, 3.4 million fee-for-service (FFS) Medicare beneficiaries were treated in the 5,603 ASCs certified to provide services to Medicare beneficiaries. Medicare program and beneficiary spending on ASC services was about \$4.6 billion.

Assessment of payment adequacy

Our results indicate that beneficiaries' access to ASC services is adequate. Most of the available indicators of payment adequacy for ASC services, discussed below, are positive.

Beneficiaries' access to care—Our analysis of facility supply and volume of services indicates that beneficiaries' access to ASC services has generally been adequate.

- **Capacity and supply of providers**—From 2012 to 2016, the number of ASCs increased by an average annual rate of 1.0 percent. In 2017, the number of ASCs increased 2.4 percent. Most new ASCs in 2017 (about 94 percent) were for-profit facilities.
- **Volume of services**—From 2012 through 2016, the volume of services per FFS beneficiary increased by an average annual rate of 1.2 percent. In 2017, volume increased by 1.7 percent.

In this chapter

- Are Medicare payments adequate in 2019?
- How should Medicare payments change in 2020?

Quality of care—The first four years of ASC-reported quality data show improvement in performance, but the measures used within the ASC Quality Reporting (ASCQR) Program will change substantially in the next few years. Among the 11 quality measures for which data were available through 2016, performance among the ASCs that reported data improved for most measures. CMS will be making several changes to the ASCQR Program for 2019 and beyond. While the Commission concurs with CMS’s decision to eliminate process measures and measures of limited utility, we remain concerned about the delayed use of Consumer Assessment of Healthcare Providers and Systems® measures and the lack of claims-based outcome measures that apply to all ASCs. For example, CMS could add measures targeting the frequency of ASC patients receiving subsequent hospital care or rates of surgical site infection.

Providers’ access to capital—Because the number of ASCs has continued to increase and hospital systems and others have significantly incorporated ASCs into their business strategies, access to capital appears to be adequate.

Medicare payments and providers’ costs—From 2012 to 2016, Medicare payments for ASC services per FFS beneficiary increased by an average annual rate of 3.5 percent. By contrast, in 2017, payments for ASC services increased by 7.7 percent. ASCs do not submit data on the cost of services they provide to Medicare beneficiaries. Therefore, we cannot calculate a Medicare margin as we do for other provider types to help assess payment adequacy.

On the basis of these indicators, the Commission concludes that ASCs can continue to provide Medicare beneficiaries with access to ASC services with no update to the payment rates for 2020. In addition, the Commission continues to recommend that the Secretary of Health and Human Services collect cost data from ASCs without further delay. ■

Background

An ambulatory surgical center (ASC) is a distinct entity that primarily provides outpatient surgical procedures to patients who do not require an overnight stay after the procedure. In addition to ASCs, hospital outpatient departments (HOPDs) and, in some cases, physicians' offices perform outpatient surgical procedures.

Since 1982, Medicare has covered and paid for surgical procedures provided in ASCs. Medicare covers surgical procedures represented in about 3,500 Healthcare Common Procedure Coding System (HCPCS) codes under the ASC payment system. However, ASC volume for services covered under Medicare is concentrated in a relatively small number of HCPCS codes. For example, in 2017, 28 HCPCS codes accounted for 75 percent of the ASC volume for surgical services provided to Medicare beneficiaries. For procedures performed in an ASC, Medicare makes two payments: one to the facility through the ASC payment system and the other to the physician for his or her professional services through the payment system for physicians and other health professionals, also known as the physician fee schedule (PFS). According to surveys, most ASCs have partial or complete physician ownership (Ambulatory Surgery Center Association 2017, Medical Group Management Association 2009). Physicians who perform surgeries in ASCs they own receive a share of the ASC's facility payment in addition to payment for their professional services. To receive payments from Medicare, ASCs must meet Medicare's conditions of coverage, which specify standards for administration of anesthesia, quality evaluation, operating and recovery rooms, medical staff, nursing services, and other aspects of care.

Medicare pays ASCs for a bundle of facility services and items—such as nursing, recovery care, anesthetics, and supplies—through a system that is linked primarily to the outpatient prospective payment system (OPPS), which Medicare uses to set payment rates for most services provided in HOPDs. The ASC payment system is also partly linked to the PFS. A more detailed description of the ASC payment system can be found online at http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_asc_final_sec.pdf?sfvrsn=0.

For most covered procedures, payment rates in the ASC payment system are the product of a relative weight and a conversion factor. The ASC relative weight, which

indicates a procedure's resource intensity relative to other procedures, is based on its relative weight under the OPPS. Although the ASC payment system is linked to the OPPS, payment rates for all services covered under both systems are lower in ASCs for two reasons. First, relative weights are lower under the ASC system compared with the OPPS relative weights because CMS makes proportional adjustments to the relative weights of the OPPS to maintain budget neutrality in the ASC system. In 2019, this adjustment results in ASC relative weights that are 12.0 percent lower than the relative weights in the OPPS. Second, for most procedures covered under the ASC system, the payment rate is the product of its relative weight and an ASC conversion factor, set at \$46.53 for 2019, which is lower than the OPPS conversion factor set at \$79.49 for 2019.

The ASC conversion factor is lower than the OPPS conversion factor because it started at a lower level in 2008 and has been updated since then at a lower rate than the OPPS conversion factor. CMS set the initial ASC conversion factor in 2008 such that total payments to ASCs under the revised payment system would equal what they would have been under the pre-2008 ASC payment system. In addition, from 2010 through 2018, CMS updated the ASC conversion factor based on the consumer price index for all urban consumers (CPI-U), while it used the hospital market basket (MB) index to update the OPPS conversion factor. The CPI-U has generally been lower than the hospital MB index. Therefore, the ASC conversion factor has been updated by smaller percentages than the OPPS conversion factor.

In a change of regulatory policy, CMS has decided to update the ASC conversion factor using the hospital MB index from 2019 through 2023. Under this change, in 2019 the update to the ASC conversion factor is higher than the update to the OPPS conversion factor because the update to the ASC conversion factor is the hospital MB index minus a multifactor productivity adjustment, while the OPPS conversion factor is the hospital MB index minus a multifactor productivity adjustment minus a statutory adjustment of 0.75 percentage points from the Patient Protection and Affordable Care Act of 2010. From 2020 through 2023, both the ASC and OPPS conversion factors will be the hospital MB index minus a multifactor productivity adjustment.

We are concerned that neither the CPI-U nor the hospital MB index reflects ASCs' cost structure (see text box,

p. 145). The Commission has recommended that CMS collect cost data from ASCs to identify a price index that would be an appropriate proxy for ASC costs (Medicare Payment Advisory Commission 2010). However, the ASC industry has opposed the collection of cost data for this purpose (Ambulatory Surgery Center Association 2012), and CMS does not yet collect these data. In 2018, CMS requested comments on whether the Secretary should collect cost data from ASCs to use in determining ASC payment rates. Representatives of individual ASCs provided comments that generally opposed a policy that would require ASCs to submit formal cost reports, but were willing to complete surveys on the condition that they would not be administratively burdensome (Centers for Medicare & Medicaid Services 2017). The Commission asserts, however, that all other institutional providers submit at least abbreviated versions of cost reports to CMS, including small entities such as hospices and home health agencies. Moreover, the ASCs in Pennsylvania are able to submit revenue and cost data each year to the Pennsylvania Health Care Cost Containment Council, so it is clear that submission of cost data is feasible for ASCs. Indeed, submitting revenue and cost data does not appear to adversely affect ASC participation: In Pennsylvania, there were seven more ASCs in 2017 than in 2016.

CMS uses a different method from the one described above to determine payment rates for procedures that are predominantly performed in physicians' offices and were first covered under the ASC payment system in 2008 or later. Payment for these "office-based" procedures is the lesser of the amount derived from the standard ASC method or the practice expense portion of the PFS rate that applies when the service is provided in a physician's office (the nonfacility practice expense, which covers the equipment, supplies, nonphysician staff, and overhead costs of a service).¹ The physicians who provide these services receive a separate payment under the PFS. CMS set this limit on the rate for office-based procedures to prevent migration of these services from physicians' offices to ASCs for financial reasons.

The ASC payment system generally parallels the OPPS in terms of which ancillary services are paid separately and which are packaged into the payment of the associated surgical procedure. In 2015, however, the connection between the ASC payment system and the OPPS was weakened when CMS implemented comprehensive ambulatory payment classifications (C-APCs) for the

OPPS but not for the ASC system. C-APCs combine all hospital outpatient services reported on a claim that are covered under Medicare Part B into a single payment, with a few exceptions. CMS has not implemented C-APCs in the ASC system because the system of processing ASC claims does not allow for the type of packaging of ancillary items necessary to create C-APCs. Therefore, the payment bundles for services in the C-APCs under the OPPS have greater packaging of ancillary items than the same services under the ASC payment system. Consequently, a disconnect exists between OPPS payment rates and ASC payment rates for the services that are in C-APCs under the OPPS. The magnitude of this disconnect has grown over time because CMS has substantially expanded the number of C-APCs. Currently, about 72 percent of HCPCS codes for surgical procedures that are covered under the ASC payment system are in C-APCs under the OPPS. The Commission supports the use of C-APCs in the OPPS and encourages CMS to implement them in the ASC payment system because the greater packaging of ancillary items that occurs with C-APCs gives providers an incentive to furnish care more efficiently.

Although we do not have recent ASC cost data that would allow us to quantify cost differences between settings, evidence suggests that ASCs are a lower cost setting than HOPDs. The Government Accountability Office (GAO) compared ASC cost data from 2004 with HOPD costs and found that costs were, on average, lower in ASCs than in HOPDs (Government Accountability Office 2006).² In addition, studies that used data from the National Survey of Ambulatory Surgery found that the average time for ambulatory surgical visits for Medicare patients was 25 percent to 39 percent lower in ASCs than in HOPDs, which likely contributes to lower costs in ASCs (Hair et al. 2012, Munnich and Parente 2014).³ An additional study using data from a facility that has both an ASC and a hospital found that surgeries took 17 percent less time in the ASC (Trentman et al. 2010). Trentman and colleagues and Munnich and Parente estimated less time savings in ASCs than did Hair and colleagues, likely because Trentman and colleagues and Munnich and Parente accounted for differences in health status between patients treated in ASCs and those treated in HOPDs, while Hair and colleagues did not. Beneficiaries who are sicker may require more time to treat. We have found that, on average, beneficiaries receiving surgical services in HOPDs are not as healthy

**TABLE
5-1****Number of ASCs grew, 2012–2017**

Type of ASC	2012	2016	2017	Average annual percent change	
				2012–2016	2016–2017
Total	5,216	5,474	5,603	1.0%	2.4%
New	176	159	189	N/A	N/A
Closed or merged	114	90	60	N/A	N/A

Note: ASC (ambulatory surgical center), N/A (not applicable). The average annual percentage change data for the “new” and “closed or merged” categories are shown as “N/A” because they are outside the purpose of this table, which is to show the growth in the total number of ASCs.

Source: MedPAC analysis of Provider of Services file from CMS, 2018.

as beneficiaries receiving those services in ASCs, as indicated by risk scores from the CMS hierarchical condition categories risk adjustment model.

Are Medicare payments adequate in 2019?

To address whether payments for the current year (2019) are adequate to cover the costs of efficient providers and how much payments should change in the coming year (2020), we examine several measures of payment adequacy. We evaluate beneficiaries’ access to care by examining the supply of ASC facilities and changes over time in the volume of services provided, providers’ access to capital, and changes in ASC revenue from the Medicare program. However, our assessment of quality of care (another measure of payment adequacy) is limited and does not fully represent quality in ASCs. Most of our available indicators of payment adequacy are positive.

Beneficiaries’ access to care: Supply of ASCs and volume of services indicate adequate access

Beneficiaries have adequate access to care in ASCs, although some groups—such as beneficiaries dually eligible for Medicare and Medicaid, African Americans, and beneficiaries under age 65—are less likely than the average beneficiary to receive care in ASCs than in HOPDs. The number of ASC facilities has increased, and the volume of services provided to Medicare

beneficiaries has been fairly stable. Access to ASCs may be beneficial to patients and physicians compared with HOPDs, the provider type most similar to ASCs. For patients, ASCs can offer more convenient locations, shorter waiting times, and easier scheduling relative to HOPDs. ASCs offer physicians more control over their work environment and specialized staff. In addition, beneficiaries’ cost sharing is lower in ASCs than in HOPDs. However, these same qualities could lead to overuse of surgical procedures.

Capacity and supply of providers: Number of ASCs is increasing

From 2016 to 2017, the number of ASCs increased 2.4 percent to 5,603 ASCs (Table 5-1). This annual growth rate was faster than the period from 2012 to 2016, when the number of ASCs increased 1.0 percent per year. In 2017, the number of new ASCs increased by 189, while 60 ASCs closed or merged with other facilities. The number of ASCs that closed or merged has declined each year from 2012 to 2017, and the number of new ASCs has outnumbered closed ASCs. In addition, through the first three-quarters of 2018, a reported 106 new ASCs have opened in several states (Dyrda 2018a, Dyrda 2018b).

Several factors may explain the relatively slower growth of ASCs between 2012 and 2016 and faster growth from 2016 to 2017. From 2012 to 2016, to expand their outpatient surgery capacity, many hospitals acquired and integrated ASCs into the hospital or developed new surgery centers that were part of the hospital.

**TABLE
5-2****Most ASCs are for profit and urban****ASCs that were:**

Type of ASC	Open in 2012	Open in 2017	New in 2017
For profit	93.6%	93.8%	92.6%
Nonprofit	3.8	3.5	5.8
Government	2.7	2.7	1.6
Urban	92.5	92.9	94.2
Rural	7.4	7.1	5.8

Note: ASC (ambulatory surgical center). Some totals do not sum to 100 percent because of rounding.

Source: MedPAC analysis of Provider of Services file from CMS, 2018.

This approach may have limited the market for new freestanding ASCs (Jacobson 2014, Kochman 2014, Livingston 2014, Moody 2014, Sowa 2014). During this time, hospitals' decisions to increase their outpatient surgery capacity may have been influenced by the higher rates Medicare pays for ambulatory surgical services provided in HOPDs relative to ASCs (in 2019, Medicare's rates are 94 percent higher in HOPDs than in ASCs).⁴ In addition, during this period, physicians were increasingly choosing to be employed by hospitals rather than work in an independent practice (American Medical Association 2017, Berenson et al. 2012, Mathews 2012, Medicare Payment Advisory Commission 2013a, Merritt Hawkins 2014, Physicians Advocacy Institute 2018). In general, these physicians are more likely to provide ambulatory procedures in the hospitals that employ them than in freestanding ASCs. However, from 2016 to 2017 and beyond, hospital systems such as Tenet Healthcare Corporation and HCA Healthcare Inc. have invested more substantially in outpatient surgical capacity and ASCs. Some believe this new strategy is intended to respond to the trend toward value-based care and the associated desire to conduct surgeries in lower cost settings such as ASCs (Barclays 2018, Japsen 2018, Moody's Investors Service 2018). Last, hospital systems that acquire ASCs have the option of maintaining the facility as an ASC or converting it to an off-campus provider-based department (PBD) of a hospital (most likely an outpatient surgery department).

However, in response to provisions in the Bipartisan Budget Act of 2015 (Section 603), CMS has aligned payment rates for facilities established as off-campus PBDs after November 2, 2015, with PFS payment rates, which are typically lower than ASC rates. Therefore, there is little incentive for a hospital system to acquire an ASC and convert it to an off-campus PBD. Instead, it is more financially beneficial to maintain the facility as an ASC.

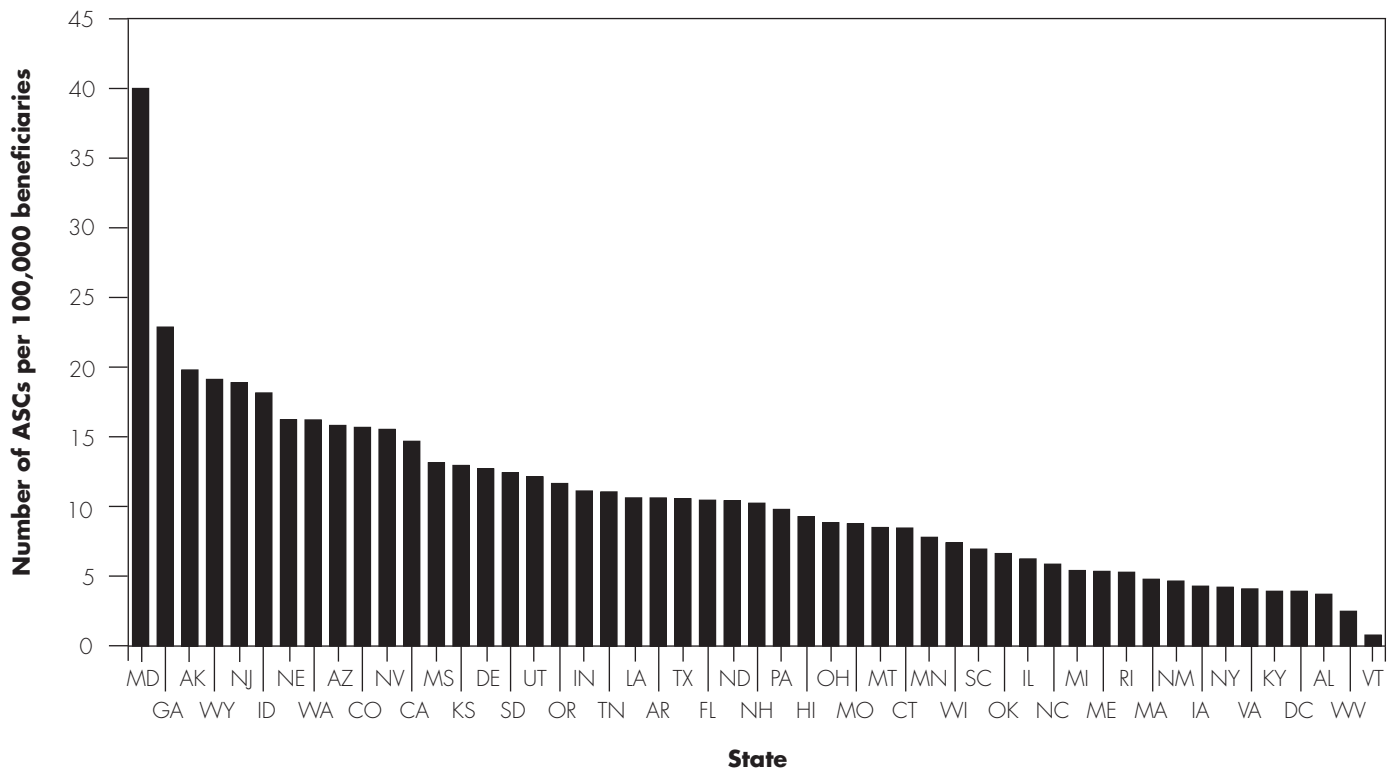
The number of operating rooms (ORs) in ASCs is also growing. In 2017, there were nearly 17,000 ORs in ASCs, or an average of 3.0 per facility. From 2012 to 2016, the total number of ASC ORs increased 0.8 percent per year, a slightly slower rate than the growth in the number of ASCs over the same period (1.0 percent per year). However, from 2016 to 2017, the number of ORs in ASCs increased by about 1.6 percent, also a slightly slower rate than the growth rate in the number of ASCs from 2016 to 2017, which suggests the size of ASCs has declined since 2012. For example, ASCs that entered the market in 2017 had an average of 2.7 ORs, while those operating in 2012 had an average of 3.1 ORs.

Consistent with previous years, most ASCs in 2017 were for profit (93.8 percent) and located in urban areas (92.9 percent) (Table 5-2). However, ASCs that were new in 2017 were slightly more likely to be nonprofit and urban (including urban and suburban areas) compared with existing ASCs. Beneficiaries who do not live near an ASC can obtain ambulatory surgical services in HOPDs and, in some cases, physicians' offices. Beneficiaries who live in rural areas can travel to urban areas to receive care in ASCs. In addition, most ASCs are freestanding, located off a hospital campus (99 percent) (data not shown).

Geographic distribution of ASCs is uneven

In addition to being much more common in urban areas than rural areas, the concentration of ASCs varies widely among states. In 2017, Maryland had the most ASCs per Medicare beneficiary (40 ASCs per 100,000 Part B beneficiaries), followed by Georgia, Alaska, and Wyoming (approximately 20 ASCs per 100,000 beneficiaries) (Figure 5-1, p. 133). Kentucky, the District of Columbia, Alabama, West Virginia, and Vermont had the fewest ASCs per beneficiary (fewer than 4 ASCs per 100,000 beneficiaries). Availability in Vermont was especially low, with less than 1 ASC per 100,000 beneficiaries, and only 1 ASC in the entire state.⁵

Even though beneficiaries can largely receive the same services in HOPDs if an ASC is not located near them, the

**FIGURE
5-1****Number of ASCs per beneficiary varies widely across states**

Note: ASC (ambulatory surgical center).

Source: MedPAC analysis of CMS Provider of Services file for 2018 and Medicare denominator file for 2017.

small number of ASCs in some states and rural areas may raise concerns about beneficiaries' access to ambulatory surgical services in the context of site-neutral payments between ASCs and HOPDs. In its June 2013 report, the Commission identified surgical services that are viable for site-neutral payments between the ASC payment system and the OPPS (Medicare Payment Advisory Commission 2013a). The impact of site-neutral payments between ASCs and HOPDs would be to lower payment for some services in HOPDs. Hospitals could respond by reducing the extent to which they provide these services. In areas that have low ASC concentration, site-neutral payments could make it more difficult for beneficiaries to access ambulatory surgical services.

We found that rural beneficiaries—defined as those who live outside metropolitan statistical areas (MSAs)—are less likely to receive care in an ASC than are urban

beneficiaries—defined as those living in an MSA. In 2017, 7.2 percent of rural beneficiaries received care in an ASC versus 10.4 percent of urban beneficiaries.

Specialization of ASCs largely unchanged, some growth in pain management

The majority of ASCs that billed Medicare in 2017 specialized in a single clinical area, with gastroenterology and ophthalmology being the most common, and ASCs specializing in pain management services are growing as a share of ASCs. Overall, in 2017, 61 percent of ASCs were single-specialty facilities and 40 percent were multispecialty facilities, providing services in more than one clinical specialty (Table 5-3, p. 134).⁶ In 2017, the most common single-specialty ASCs focused on gastroenterology (21 percent) and ophthalmology (21 percent). The most common multispecialty ASCs

**TABLE
5-3****Specialization of ASCs billing Medicare in 2015 and 2017**

Type of ASC	2015		2017	
	Number of ASCs	Share of all ASCs	Number of ASCs	Share of all ASCs
Single specialty	2,878	61%	2,890	61%
Gastroenterology	1,027	22	1,019	21
Ophthalmology	1,020	22	1,022	21
Pain management	355	8	368	8
Dermatology	191	4	179	4
Urology	124	3	125	3
Podiatry	95	2	88	2
Orthopedics/musculoskeletal	23	0	29	1
Respiratory	16	0	24	1
OB/GYN	9	0	11	0
Cardiology	10	0	18	0
Neurology	5	0	6	0
Other	3	0	1	0
Multispecialty	1,802	38	1,878	40
More than 2 specialties	1,421	30	1,415	30
Pain management and either neurology or orthopedics	221	5	288	6
Gastroenterology and ophthalmology	160	3	175	4
Total	4,680	100	4,768	100

Note: ASC (ambulatory surgical center), OB/GYN (obstetrics and gynecology). A "single-specialty ASC" is defined as one with more than 67 percent of its Medicare claims in one clinical specialty. A "multispecialty ASC" is defined as one with more than 67 percent of its Medicare claims in more than one clinical specialty. ASCs included in this analysis are limited to those in the 50 states and the District of Columbia with a paid Medicare claim in 2017. Columns containing the share of all ASCs may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Medicare carrier file claims, 2017.

that focused on two specialties in 2017 were those specializing in pain management and either neurology or orthopedic services (6 percent of all ASCs). From 2015 to 2017, ASCs specializing in pain management services grew most rapidly. Across both single-specialty and multispecialty ASCs in 2017, there were roughly 100 more pain management ASCs than in 2015.

Continued growth in the number of ASCs suggests that Medicare's payment rates have been adequate. Other factors also have likely influenced the long-term growth in the number of ASCs:

- Changes in clinical practice and health care technology have expanded the provision of surgical procedures in ambulatory settings. There is potential

for this trend to continue as momentum grows for knee and hip arthroplasty (knee and hip replacement) to be done in ambulatory settings.

- ASCs can offer patients greater convenience than HOPDs, such as the ability to schedule surgery more quickly.
- For most procedures covered under the ASC payment system, beneficiaries' coinsurance is lower in ASCs than in HOPDs.⁷
- Physicians have greater autonomy in ASCs than in HOPDs, which enables them to design customized surgical environments and hire specialized staff.

**TABLE
5-4****Volume of ASC services per FFS beneficiary increased in 2017**

	2012	2016	2017	Average annual change	
				2012-2016	2016-2017
Volume of services (in millions)	6.0	6.4	6.5	1.8%	1.4%
Volume per 1,000 FFS beneficiaries	181.2	190.1	193.3	1.2	1.7

Note: ASC (ambulatory surgical center), FFS (fee-for-service). The volume of services for 2012 and 2016 has been modified to reflect the volume of services covered under the ASC payment system in 2017 that was provided in those years.

Source: MedPAC analysis of physician/supplier standard analytic files from CMS, 2012-2017.

- Physicians who invest in ASCs and perform surgeries on their patients in those ASCs can increase their revenue by receiving a share of ASC facility payments. The federal anti-self-referral law (also known as the Stark Law) does not apply to ASC services.
- Because physicians are able to perform more procedures in ASCs than in HOPDs in the same amount of time, they can earn more revenue from professional fees.
- Increased interest across the health care industry in the concept of value-based care and the provision of care in lower cost settings has increased the strategic investment interest of hospital systems, insurers, and private equity firms in ASCs (Barclays 2018, Japsen 2018).

Number of beneficiaries treated and volume of services per beneficiary increased from 2016 to 2017

The number of fee-for-service (FFS) beneficiaries treated in ASCs and the volume of ASC surgical services per FFS beneficiary increased from 2016 to 2017. Because ASC services are covered under Part B, we limited our analysis to FFS beneficiaries who have Part B coverage. The number of FFS beneficiaries who received ASC services grew by an average of 1.0 percent per year from 2012 through 2016 and increased by 0.4 percent in 2017 (data not shown). The volume of services per FFS beneficiary increased by an average of 1.2 percent per year from 2012

through 2016 and increased by 1.7 percent in 2017 (Table 5-4). On average, the number of services per beneficiary receiving care in ASCs increased at an average annual rate of 0.8 percent from 2012 through 2016 and 1.0 percent in 2017 (data not shown).

Services that have historically contributed the most to overall ASC volume continued to be a large share of the total in 2017. For example, the HCPCS code for cataract removal with intraocular lens insertion (HCPCS 66984) had the highest volume in both 2012 and 2017, accounting for 18.9 percent of the total in 2012 and 18.8 percent in 2017. Moreover, 19 of the 20 most frequently provided HCPCS codes in 2012 were among the 20 most frequently provided in 2017 (Table 5-5, p. 137). These services made up about 71 percent of ASC Medicare volume in 2012 and 70 percent in 2017.

A potential concern about the services most frequently provided in ASCs is the extent to which they are unnecessary or low value, such as spinal injections and other pain management services (Pinto et al. 2012). We have found that the volume of pain management services grew robustly from 2012 to 2017. Table 5-5 shows that from 2012 to 2017, injections of foramen epidural into either the lumbar or sacral area, injecting the paravertebral facet joint in the lumbar or sacral area, injecting an anesthetic into the sacroiliac joint, and destruction of nerves in the lumbar or sacral facet joint all grew strongly. Moreover, the volume of insertion or replacement of spinal neurostimulators increased sharply from about 2,000 in 2012 to 9,500 in 2017 (data not shown).

Volume of outpatient surgical procedures increased by a higher percentage in ASCs than in HOPDs in 2017

For the first time in several years, surgical volume in 2017 increased at a faster rate in ASCs than in HOPDs. From 2012 through 2016, average annual growth in volume per FFS beneficiary of surgical services covered by the ASC payment system was 1.2 percent in ASCs compared with 2.4 percent in HOPDs. In 2017, volume per FFS beneficiary increased by 1.7 percent in ASCs and by 0.7 percent in HOPDs.

The higher growth in ASCs in 2017 relative to HOPDs is a reversal of what occurred in previous years when growth in HOPDs was higher than in ASCs. This change is likely a reflection of the same factors that contributed to the faster growth in the number of ASCs in 2017, discussed earlier. That is, the higher volume growth in ASCs in 2017 was a response to the trend toward value-based care and the associated desire to conduct surgeries in lower cost settings, such as ASCs (Barclays 2018, Japsen 2018, Moody's Investors Service 2018). Also, beginning in 2017, when a hospital system acquires an ASC, provisions in Section 603 of the Bipartisan Budget Act of 2015 have made it more financially advantageous to maintain the facility as an ASC rather than convert it to an off-campus PBD of a hospital.

Maintaining or expanding access to ASCs can be beneficial for patients and Medicare

Maintaining beneficiaries' access to ASCs has some benefits because services provided in this setting are less costly to Medicare and beneficiaries than services delivered in HOPDs.⁸ Medicare payment rates for surgical services performed in HOPDs are almost twice as high as in ASCs. For example, the payment rate in 2019 for cataract surgery with intraocular lens insertion (the service most frequently provided in ASCs) is \$1,917 in HOPDs compared with \$977 in ASCs. The lower payment rate in ASCs for this service has been financially beneficial to Medicare and beneficiaries. Other recent studies similarly find that ASCs are less costly than HOPDs in the Medicare and non-Medicare context and that the recent price growth at ASCs has been slower than price growth at HOPDs (Carey 2015, Robinson et al. 2015).

Medicare program spending and overall beneficiary cost sharing could be reduced if more surgical services were provided in ASCs than HOPDs or if HOPD payment rates are reduced to the level that Medicare sets for

ASCs. This issue is pertinent to the ASC sector because among even the most frequently provided services in ASCs, a substantial volume is provided in HOPDs. For example, 434,000 Medicare-covered cataract surgeries with intraocular lens insertion were performed in HOPDs in 2017, which was 26 percent of the total volume for this service.

Concern remains, however, about services provided in ASCs rather than HOPDs because most ASCs have some degree of physician ownership. Studies offer some evidence that physicians who have an ownership stake in an ASC perform a higher volume of certain procedures than physicians who do not (Hollingsworth et al. 2010, Mitchell 2010, Strobe et al. 2009). Other studies suggest that the presence of an ASC in a market is associated with a higher volume of outpatient surgical procedures (Hollenbeck et al. 2014, Hollingsworth et al. 2011, Koenig and Gu 2013). Although none of these studies assessed the appropriateness of the additional procedures, they suggest that the presence of ASCs might increase overall surgical volume.

Another setting that has a substantial overlap of services with ASCs is physician offices. In general, Medicare payment rates are higher in ASCs than in physician offices for the same procedure. Services that are frequently provided in both ASCs and physician offices include cystoscopy, pain management, and, to a lesser extent, cataract procedures. Cystoscopy is performed much more frequently in offices than in ASCs, pain management is about equally common in these two settings, and cataract procedures are done more frequently in ASCs than in physician offices.

Quality of care: ASC-reported quality data demonstrate modest improvement

ASC-reported quality data demonstrated modest improvement in recent years. CMS established the ASC Quality Reporting (ASCQR) Program in 2012 (Centers for Medicare & Medicaid Services 2011). Under this system, ASCs that do not successfully submit data that measure quality have their payment update for that year reduced by 2 percentage points. Actual performance on these quality measures does not affect an ASC's payments; ASCs are required only to submit the data to receive a full update. The Commission has recommended a value-based purchasing program for ASCs that would reward high-performing providers and penalize low-performing providers (see text box, p. 140).

**TABLE
5-5**

The 20 most frequently provided ASC services in 2017 were similar to those provided in 2012

Surgical service	2012		2017	
	Percent of volume	Rank	Percent of volume	Rank
Cataract surgery w/ IOL insert, 1 stage	18.9%	1	18.8%	1
Upper GI endoscopy, biopsy	8.9	2	8.0	2
Colonoscopy and biopsy	6.5	3	6.9	3
Lesion removal colonoscopy (snare technique)	5.0	4	5.9	4
Inject foramen epidural: lumbar, sacral	4.3	5	4.7	5
After cataract laser surgery	4.3	6	4.3	6
Injection spine: lumbar, sacral (caudal)	3.7	7	2.9	8
Diagnostic colonoscopy	3.3	8	1.9	10
Inject paravertebral: lumbar, sacral	2.6	9	3.3	7
Colorectal screen, high-risk individual	2.1	10	2.0	9
Colorectal screen, not high-risk individual	1.8	11	1.8	11
Cataract surgery, complex	1.5	12	1.4	13
Upper GI endoscopy, diagnosis	1.3	13	0.9	18
Revision of upper eyelid	1.1	14	0.9	19
Lesion removal colonoscopy (hot biopsy forceps)	1.0	15	0.6	23
Inject spine, cervical or thoracic	1.0	16	1.0	16
Injection procedure for sacroiliac joint, anesthetic	1.0	17	1.4	14
Cystoscopy	1.0	18	1.0	17
Upper GI endoscopy, insertion of guide wire	0.9	19	0.8	20
Destroy lumbar/sacral facet joint	0.8	20	1.6	12
Total	71.1		70.0	

Note: ASC (ambulatory surgical center), IOL (intraocular lens), GI (gastrointestinal). Components do not sum to totals due to rounding.

Source: MedPAC analysis of physician/supplier standard analytic files from CMS, 2012 and 2017.

The quality measures for which ASCs submit data continue to evolve. Over the past year, changes made to the ASCQR Program are the result of CMS's Meaningful Measures Initiative. In the last two years, CMS made several revisions to the initial ASCQR measure set, which resulted in CMS measuring ASC quality based on eight measures (plus one voluntary measure) for 2019 and four measures (plus one voluntary measure) for 2021 (Table 5-6, p. 138). In recent years, CMS has chosen to discontinue or delay several measures that were considered "topped out" (meaning full or nearly full compliance with these measures has been reached), demonstrated less utility, or were not ready for use, including the discontinuation of the current adverse event measures

(ASC-1 through ASC-4) and the delay of measures of patient experience.⁹ For 2022, CMS will implement two new claims-based measures of beneficiaries' visits to a hospital subsequent to an ASC orthopedic or urology procedure, respectively (ASC-17 and ASC-18).

Results from reported ASC quality data

Data reported by ASCs for four years (2013 to 2016) suggest improvement in ASC quality of care. Among the 11 quality measures for which data were available in 2016, performance improved for most measures. For the four adverse event measures (ASC-1, ASC-2, ASC-3, and ASC-4), the data show consistently low levels of these events in each of the four years and gradual improvement

**TABLE
5-6****Quality measures used in the ASC Quality Reporting Program**

Description of quality measure	Required in:	
	2019	2021
ASC-1: Patient burn	Yes ^a	No
ASC-2: Patient fall	Yes ^a	No
ASC-3: Wrong site, wrong side, wrong patient, wrong procedure, wrong implant	Yes ^a	No
ASC-4: Hospital transfer/admission	Yes ^a	No
ASC-5: Prophylactic intravenous antibiotic timing	No ^b	No
ASC-6: Safe-surgery checklist use	No ^b	No
ASC-7: ASC facility volume data on selected ASC surgical procedures	No ^b	No
ASC-8: Influenza vaccination coverage among health care personnel	Yes ^c	No
ASC-9: Endoscopy/polyp surveillance: Appropriate follow-up interval for normal colonoscopy in average-risk patients	Yes	Yes
ASC-10: Endoscopy/polyp surveillance: Colonoscopy interval for patients with a history of adenomatous polyps—avoid inappropriate use	Yes ^d	No
ASC-11: Cataracts: Improvement in patient's visual function within 90 days following cataract surgery	Voluntary	Voluntary
ASC-12: Facility seven-day risk standardized hospital visit rate after outpatient colonoscopy	Yes	Yes
ASC-13: Normothermia outcome: Percentage of patients under anesthesia who are normothermic within 15 minutes of arrival in the post-anesthesia care unit	No ^e	Yes
ASC-14: Unplanned anterior vitrectomy: Percentage of cataract surgery patients who have an unplanned removal of the vitreous	No ^e	Yes
ASC-15: Five patient experience measures from the Consumer Assessment of Healthcare Providers and Systems [®] survey measures:		
ASC-15a: About facilities and staff		
ASC-15b: Communication about procedure		
ASC-15c: Preparation for discharge and recovery		
ASC-15d: Overall rating of facility		
ASC-15e: Recommendation of facility	No ^f	No
ASC-16: Toxic anterior segment syndrome (TASS)	No ^f	No
ASC-17: Hospital visits after orthopedic ASC procedures	No ^g	No
ASC-18: Hospital visits after urology ASC procedures	No ^g	No

Note: ASC (ambulatory surgical center).

^aRetained in the ASC Quality Reporting (ASCQR) Program, but data collection is suspended by CMS starting in 2019. As a result, the measure will not be used for payment year 2021.

^bDiscontinued by CMS from the ASCQR Program beginning in 2018.

^cDiscontinued by CMS from the ASCQR Program beginning in 2020.

^dDiscontinued by CMS from the ASCQR Program beginning in 2021.

^eCMS will activate this measure in 2020.

^fCMS has delayed the implementation of this ASCQR measure indefinitely.

^gCMS will activate this measure in 2022.

Source: Final rule for outpatient prospective payment system and ambulatory surgical center payment system, 2019.

(Table 5-7). Specifically, the share of ASCs reporting zero adverse events increased over time. For example, from 2013 to 2016, the share of ASCs without any patient burns

increased from 88 percent to 92 percent, and the share of ASCs without any patient falls increased from 91 percent to 94 percent (data not shown).

**TABLE
5-7**

ASC quality measure levels, 2013-2016

ASC quality measure	Mean percent among ASCs				Estimated number of events in 2016*
	2013	2014	2015	2016	
ASC-1: Share of patients suffering burns	0.36%	0.43%	0.49%	0.24%	11,500
ASC-2: Share of patients suffering falls	0.18	0.10	0.14	0.08	4,000
ASC-3: Share of patients suffering a "wrong" event	0.07	0.03	0.03	0.03	1,400
ASC-4: Share of patients transferred to a hospital	0.51	0.45	0.42	0.43	21,000
ASC-8: Share of ASC staff receiving an influenza vaccination		74	75	77	N/A
ASC-9: Share of average risk patients with appropriate endoscopy/polyp surveillance		77	80	81	N/A
ASC-10: Share of patients with polyp history with appropriate endoscopy/polyp surveillance		79	79	80	N/A
ASC-11: Share of patients with vision improvement 90 days after cataract surgery			96	96	N/A

Note: ASC (ambulatory surgery center), N/A (not applicable).

*The number of events was estimated using the average reported rate of occurrence and the total number of ASC claims in 2016 (4.9 million). The estimated number of events is not calculated for measures that do not pertain to adverse events.

Source: Medicare Hospital Compare data for ASCs, 2013-2016.

In addition to the adverse event measures, other ASCQR measures demonstrated improvement. For example, from 2013 to 2016, the share of ASCs reporting their staff received influenza vaccinations (ASC-8) increased from 74 percent to 77 percent. Improvement and generally high levels of performance were also observed for measures of the surveillance and follow-up of patients treated for certain gastroenterology or cataract surgeries. While room for improvement exists for three of these other measures (ASC-8, ASC-9, and ASC-10), these data appear to be trending in a positive direction.¹⁰

ASC quality measures should continue to be refined

The Commission asserts CMS should continue to improve the ASCQR Program by moving toward more CMS-calculated claims-based outcome measures that apply to all ASCs. In addition, the Commission asserts ASCQR measures should be synchronized with measures included in the Hospital Outpatient Quality Reporting (OQR) Program to facilitate comparisons between ASCs and HOPDs. The Commission commends CMS

on its decisions to discontinue three process measures in 2018 and for adding the two claims-based unplanned hospitalization measures for 2022. However, the Commission maintains concern about four issues related to the ASCQR Program:

- The program does not include enough claims-based measures assessing clinical outcomes that apply to the various specialties practiced at ASCs. For example, if no further changes are made to the ASCQR measure set before 2022, the measure set will include two measures for ASCs conducting colonoscopies, one measure for ASCs conducting cataract surgeries, one measure for ASCs conducting orthopedic procedures, and one measure for ASCs conducting urology procedures. This potential measure set appears to exclude many services provided at ASCs.
- CMS's delay of the Consumer Assessment of Healthcare Providers and Systems® (CAHPS®) patient experience survey quality data excludes an important part of assessing quality of care.¹¹ Among the

Creating a value-based purchasing program for ambulatory surgical centers

In 2012, the Commission recommended that the Congress authorize and CMS implement a value-based purchasing (VBP) program for ambulatory surgical centers (ASCs). A VBP program would reward high-performing providers and penalize low-performing providers (Medicare Payment Advisory Commission 2012).¹²

CMS established a quality reporting program for ASCs in 2012. However, Medicare payments to ASCs are not adjusted based on how they perform on quality measures, only on whether they report the measures. The Commission believes that high-performing ASCs should be rewarded and low-performing facilities should be penalized through the payment system.

Consistent with the Commission's overall position on Medicare quality measurement, an ASC VBP program should incorporate measures that are patient-oriented, encourage coordination across providers and time, and promote change in the delivery system. The ASC VBP program should include outcome, patient experience, and value measures (a value measure would address services that are costly but of low value). Also, quality measurement should not be burdensome for providers. ASCs can choose to use more granular measures to manage their own quality improvement.

An ASC VBP should give rewards based on clear, absolute, and prospectively set performance targets (as opposed to "tournament models," which require that some providers gain while others lose). The Medicare program should take into account, as necessary, differences in a provider's population, including social risk factors. Because adjusting results for social risk factors can mask disparities in clinical performance, Medicare should account for social risk factors by directly adjusting payment through peer grouping, where benchmarks for achievement are group specific, and each provider is compared with its peers, defined as providers that have similar patient populations in terms of social risk factors. In addition, funding for VBP incentive payments should come from existing Medicare spending for ASC services. Initially, funding for the incentive payments should be set at 1 percent to 2 percent of aggregate ASC payments. The size of this pool should be expanded gradually as more measures are developed and ASCs become more familiar with the program. (Our March 2016 report to the Congress provides more detail about our recommendation to CMS about an ASC VBP program (Medicare Payment Advisory Commission 2016). ■

Commission's quality measurement principles is that quality programs include patient experience (Medicare Payment Advisory Commission 2018b). CAHPS is the only survey in the ASCQR Program that queries patients about their experience.

- ASCQR measures should be further synchronized with OQR measures to facilitate comparison across ASCs and HOPDs. For 2019 and 2020, the ASCQR Program and the OQR Program possess five common quality measures that pertain to cataract procedures, colonoscopy procedures, and rates of influenza vaccination among health care personnel. CMS should consider further expanding the overlap of

the ASCQR Program and OQR Program, relying either on measures of general surgical procedures or measures of specific surgical procedures common to both settings. For example, CMS could consider implementing OQR measure OP-36 (the number of hospital visits after any outpatient surgery) within the ASCQR Program or implementing ASCQR measures ASC-17 and ASC-18 (the number of hospital visits following orthopedic and urology procedures, respectively) within the OQR Program. In addition, the aforementioned delay in implementing the CAHPS patient experience measures affects both the ASCQR Program and OQR Program and impedes the comparison of ASCs and HOPDs.

**TABLE
5-8**

Share of ASC cases with subsequent hospital visits, 2014 and 2017

Type of ASC	Subsequent hospital visit within 7 days after discharge from ASC			
	2014		2017	
	Number of ASC cases	Share of cases within type of ASC	Number of ASC cases	Share of cases within type of ASC
All ASCs	90,552	1.9%	98,714	2.0%
Multispecialty	38,562	2.2	43,582	2.4
Gastroenterology and ophthalmology	4,871	1.9	5,311	2.6
Single specialty	51,990	1.7	55,132	1.8
Pain management	6,745	2.2	7,266	2.4
Urology	4,068	3.7	4,814	4.1
Cardiology	235	7.2	633	7.9

Note: ASC (ambulatory surgical center). "Subsequent hospital visit" includes inpatient admissions, observation services, and emergency department visits but excludes cases related to trauma or mental health services.

Source: MedPAC analysis of Medicare physician, hospital outpatient, and hospital inpatient claims.

- All reported quality data should continue to be made publicly available. In prior years, CMS elected to allow ASCs to voluntarily and temporarily withhold their quality data from public reporting (Medicare Payment Advisory Commission 2016). The Commission disagrees with this practice except in rare circumstances.

Other quality measures: Some ASC specialties show increases in hospitalizations subsequent to ASC discharge

Because of the concerns cited above and the potential value of clinical outcome measures that apply to all ASCs, we believe CMS could consider developing new ASC quality measures covering any or all of the three following areas:

- CMS should more broadly develop a measure of the number of Medicare beneficiaries discharged from ASCs who have subsequent unplanned hospital visits. CMS has already begun to implement these measures for certain specialties (e.g., ASC-12, ASC-17, and ASC-18), but CMS has not developed these measures for specialty areas or individual procedures that are common to ASCs. The Commission developed a

version of this type of measure that applies to all specialties and procedures, similar to OQR measure OP-36 (the number of hospital visits after any outpatient surgery). We found that in 2017, 2.0 percent of ASC discharges were associated with a subsequent hospital visit within seven days after discharge from an ASC (Table 5-8).^{13,14} From 2014 to 2017, the measure of subsequent hospitalizations within seven days was fairly consistent across all ASCs. However, the share of subsequent hospital visits increased slightly (suggesting quality of care worsened) at multispecialty ASCs, such as those specializing in both gastroenterology and ophthalmology (from 1.9 percent in 2014 to 2.6 percent in 2017), and some types of single-specialty ASCs. Although our measure is not risk adjusted, it should be if used in the ASCQR Program or used to compare the performance of ASCs with HOPDs.

- CMS could consider developing a measure of surgical site infections (SSIs) occurring at ASCs for the ASCQR Program. CMS could calculate this measure from claims rather than require ASCs to report it. Researchers have found that lapses in infection control were common among a sample of ASCs

in three states (Schaefer et al. 2010). The Hospital Inpatient Quality Reporting Program includes an SSI measure that applies primarily to inpatient procedures. Although CMS has considered an SSI measure for ASCs in the past (Centers for Medicare & Medicaid Services 2011), it is not currently working to develop one (Centers for Medicare & Medicaid Services 2016). In general, an SSI measure could be used to track infection rates for ASCs and identify quality improvement opportunities for ambulatory surgeries conducted in HOPDs and ASCs. In addition, measuring SSI rates could encourage providers to collaborate and better coordinate care for ambulatory surgery patients.

- CMS could consider developing new measures that rely on specialty-specific clinical guidelines to assess the appropriateness of specific services conducted at ASCs. While the ASCQR Program currently includes two ASC-reported colonoscopy measures that assess appropriate follow-up care, CMS could consider claims-based measures that assess appropriateness. For example, current American Cancer Society guidelines state that patients over the age of 85 should no longer receive colorectal cancer screening (American Cancer Society 2018). Using these guidelines, a new measure could identify the ASC-level share of colonoscopy cases in which beneficiaries are over age 85. CMS could consider similar measures of appropriateness for certain procedures that have become more common in ASCs in recent years or concerns about appropriate use have been suggested, such as spinal injections or certain orthopedic procedures.

Department of Health and Human Services will publicly report ASC-specific patient safety data

In response to the expanding scope of ASC services and the desire of ASCs to compare their performance with other ASCs, the Department of Health and Human Services (HHS), through the Agency for Healthcare Research and Quality (AHRQ), will collect and publicly report survey data on ASC-specific patient safety culture (Agency for Healthcare Research and Quality 2018, Dickson 2018a, Dickson 2018b). AHRQ worked with the ASC industry to design this program. Similar to its hospital safety survey data, AHRQ will collect survey data from ASC staff regarding their perceptions of safety culture in their workplace. This information will be reported on the AHRQ website in a format permitting

the individual identification of ASCs. AHRQ asserts that these data can be used by ASCs to improve their practices and by the public to inform decisions about where to receive care (Agency for Healthcare Research and Quality 2018).

ASCs' access to capital: Growth in number of ASCs suggests adequate access

Owners of ASCs require capital to establish new facilities and upgrade existing ones. The change in the number of ASCs is the best available indicator of ASCs' ability to obtain capital. The number of ASCs increased in 2017 by 2.4 percent, faster than in previous years (Table 5-1, p. 131). In addition, through the first three-quarters of 2018, a reported 106 new ASCs have opened in several different states (Dyrda 2018a, Dyrda 2018b). However, Medicare accounts for a small share—perhaps 20 percent—of ASCs' overall revenue, so factors other than Medicare payments may have a larger effect on access to capital for this sector (Medical Group Management Association 2009).

A series of ASC acquisitions in recent years suggests ASCs are a highly valued asset for hospital systems, private equity firms, and insurers. In 2015, Tenet Healthcare Corporation, traditionally a hospital company, began incrementally acquiring progressively larger shares of ASC chain United Surgical Partners (USP) (Kutscher 2015). Throughout 2017 and 2018, Tenet increased its investment in USP, and in mid-2018 Tenet purchased an additional 15 percent of USP from a private equity firm for \$630 million (Kacik 2018). In 2018, USP was the second largest ASC firm, accounting for more than 200 ASCs. This 2018 purchase increased Tenet's ownership of USP to 95 percent, with the remaining 5 percent owned by the health system Baylor, Scott, and White. In general, hospital systems are increasingly turning their investment attention away from the inpatient setting and toward ASCs and other outpatient capacity (Barclays 2018, Japsen 2018). For example, ASCs in 2017 accounted for roughly 20 percent of Tenet's earnings. Currently, Tenet owns over 300 ASCs and HCA owns more than 120 ASCs. In addition, Tenet and HCA state in their 2018 financial reports that ASCs are a component of their business strategy moving forward (Morningstar Document Research 2018a, Morningstar Document Research 2018b). From 2016 to 2017, Tenet reported a 10 percent increase in ASC cases and a 14 percent increase in operating revenues (Morningstar Document Research

**TABLE
5-9****Medicare payments to ASCs grew, 2012-2017**

	2012	2016	2017	Average annual change	
				2012-2016	2016-2017
Medicare payments (in billions of dollars)	\$3.6	\$4.3	\$4.6	4.1%	7.4%
Medicare payments per FFS beneficiary	\$110	\$126	\$136	3.5	7.7

Note: ASC (ambulatory surgical center), FFS (fee-for-service). "Medicare payments" includes program spending and beneficiary cost sharing for ASC facility services. Payments include spending for new-technology intraocular lenses.

Source: MedPAC analysis of data from the Office of the Actuary at CMS and data from physician/supplier standard analytic files.

2018a). Financial analysts assert that these hospital systems are acquiring ASCs or partnering with entities that own ASCs to better acclimate to a value-based care environment that will require providing surgeries in lower cost settings (Barclays 2018).

In addition, in October 2018, private equity firm Kohlberg, Kravis, Roberts, and Company completed the purchase of Envision Healthcare for \$9.9 billion (Bannow 2018). Envision Healthcare owns over 250 ASCs as a part of its 2017 purchase of AmSurg Corporation. In January 2017, Surgical Care Associates—which owned approximately 200 ASCs in 33 states—was acquired by insurer UnitedHealth Group's Optum for \$2.3 billion (Mathews 2017). This acquisition is part of a larger stated effort by the insurer to provide primary care and ambulatory services.

Strong financial positions of this magnitude suggest that ASCs are attractive to investors. Security and Exchange Commission filings from Surgery Partners Inc. (SPI), which is an operator of nearly 100 ASCs and is not affiliated with a hospital or insurer, reported increases in revenue per case (11 percent) and same-store volume (14 percent) from 2017 to 2018 (Surgery Partners 2018b). SPI also demonstrated the ability to access capital by announcing in October 2018 the acquisition of a \$180 million loan for use in merger and acquisition activity (Surgery Partners 2018a). Finally, data from the Pennsylvania Health Care Cost Containment Council's annual analysis of the state's ASCs show that ASCs in Pennsylvania had an average total margin of 25 percent in 2017 (Pennsylvania Health Care Cost Containment Council 2018).¹⁵

Although the various entities noted above appear to have adequate access to capital, we caution that these companies have ownership in a small share of the more than 5,000 ASCs. Consequently, the experience of these entities collectively may not reflect that of the entire ASC sector.

Medicare payments: Payments have steadily increased

In 2017, ASCs received \$4.6 billion in Medicare payments and beneficiaries' cost sharing (Table 5-9). We estimate that spending by the Medicare program was \$3.7 billion and beneficiary cost sharing was \$900 million (data not shown).

Spending per FFS beneficiary increased by an average annual rate of 3.5 percent from 2012 through 2016 and by 7.7 percent in 2017 (Table 5-9). The increase in 2017 reflects a 1.9 percent increase in the ASC conversion factor, a 1.7 percent increase in per capita volume, a 3.8 percent increase in the average relative weight of ASC services, and a 0.3 percentage point increase from higher use of separately payable drugs (data not shown). The growth in spending in 2017 is unusually large. Relative to 2016, the higher growth in 2017 reflects a higher increase in the ASC conversion factor and a higher increase in per capita volume. The strong growth in the average relative weight that occurred in 2016 continued in 2017. In both 2016 and 2017, this growth was driven by increased volume for high-cost procedures, such as implantation of spinal neurostimulators, which may have resulted in lower volume for relatively low-cost injections for pain management.

How should Medicare payments change in 2020?

Our analysis indicates that the number of ASCs has increased, as has beneficiaries' use of ASCs, and access to capital has been adequate. Certain measures of ASC quality indicate improvement, although we have identified areas for improvement in ASC quality measurement. Our information for assessing payment adequacy, however, is limited because Medicare does not require ASCs to submit cost data, unlike other types of facilities. Since 2010, the Commission has recommended that the Congress require that ASCs submit cost data (Medicare Payment Advisory Commission 2010).

Cost data would enable the Commission to examine the growth of ASCs' costs over time and analyze Medicare payments relative to the costs of efficient providers, which would help inform our decisions about the ASC update. Cost data are also needed to examine whether an alternative input price index would be an appropriate proxy for ASC costs. As discussed in the text box, the Commission has previously expressed concern that the price index CMS used to update the ASC conversion factor from 2010 through 2018 (the CPI-U) likely does not reflect ASCs' cost structure (Medicare Payment Advisory Commission 2010). Also, the price index that CMS has said it will use to update the ASC conversion factor from 2019 through 2023—the hospital MB—does not reflect ASCs' cost structure.

CMS has concluded that it needs data on ASC input costs (Centers for Medicare & Medicaid Services 2012). To date, CMS has not required ASCs to submit cost data. However, CMS requested public comment on whether the agency should collect cost data from ASCs for use in determining ASC payment rates. ASC representatives commented that they oppose a requirement for ASCs to submit formal cost reports, but expressed willingness to complete surveys if doing so is not administratively burdensome (Centers for Medicare & Medicaid Services 2017).

We believe it is feasible for ASCs to provide cost information. All other facility providers submit cost data to CMS. Indeed, ASCs in Pennsylvania submit cost and revenue data annually to a state agency that uses the data to estimate margins for those ASCs (Pennsylvania Health Care Cost Containment Council 2018). We recognize that ASCs are generally small facilities that may have

limited resources for collecting cost data. However, such businesses typically keep records of their costs for filing taxes and other purposes, and other facility providers that are typically small, such as home health agencies and hospices, furnish cost data to CMS.

To minimize the burden on CMS and ASCs, CMS should create a streamlined process for ASCs to track and submit a limited amount of cost data. As it did in 1986 and 1994, CMS could annually conduct a survey of a random sample of ASCs, with mandatory response. The Government Accountability Office conducted a similar random sample survey of ASC costs in 2004. CMS could also streamline ASC cost reporting by annually collecting a set of cost variables from all ASCs that is more limited than what is collected through formal cost reports, which would require less time for ASCs to complete. Alternatively, CMS could require ASCs to submit cost data from their existing cost accounting systems, provided the definitions of their reported cost variables are consistent with CMS's definitions. The Commission does not believe that a streamlined process for collecting cost data would place a large burden on ASCs. After all, individual taxpayers are able to complete and submit lengthy income tax forms. Therefore, the Commission sees no reason ASCs cannot submit at least minimal cost data.

For the Commission to determine the relationship between Medicare payments and the costs of efficient ASCs, ASCs would optimally submit the following information:

- total costs for the facility;
- Medicare unallowable costs, such as entertainment, promotion, and bad debt;
- the costs of clinical staff who bill Medicare separately, such as anesthesiologists and clinical nurse anesthetists (these costs would be excluded from the facility's costs because these clinicians are paid separately under Medicare);
- total charges across all payers and charges for Medicare patients (CMS could allocate total facility costs to Medicare based on Medicare's proportion of total charges); and
- total Medicare payments.

In addition, CMS would need to collect data on specific cost categories to determine an appropriate input price index for ASCs. For example, CMS would need

Revisiting the ASC market basket index

From 2010 through 2018, CMS used the consumer price index for all urban consumers (CPI-U) as the market basket (MB) to update the conversion factor in the ambulatory surgical center (ASC) payment system. Because of our concern that the CPI-U likely does not reflect ASCs' cost structure, the Commission examined in 2010 whether an alternative MB index would better measure changes in ASCs' input costs (Medicare Payment Advisory Commission 2010). Using data from a Government Accountability Office (GAO) survey of ASC costs in 2004, we compared the distribution of ASC costs with the distribution of hospital and physician practice costs. We found that ASCs' cost structure is different from that of hospitals and physician offices. ASCs have a much higher share of expenses for medical supplies and drugs than the other two settings, a much smaller share of employee compensation costs than hospitals, and a smaller share of all other costs (such as rent and capital costs) than physician offices. For more detail about our methods and findings, see Chapter 2C of our March 2010 report to the Congress (Medicare Payment Advisory Commission 2010).

Since our 2010 analysis, CMS has considered whether the hospital MB or the practice expense component of the Medicare Economic Index (MEI) is a better proxy for ASC costs than the CPI-U (Centers for Medicare & Medicaid Services 2012). Most recently, CMS has decided to use the hospital MB as the basis for updating

ASC payment rates from 2019 through 2023 (Centers for Medicare & Medicaid Services 2018). As we stated above, our analysis of GAO cost data showed that ASCs have a different cost structure than hospitals. Therefore, we do not believe the hospital MB is an appropriate market basket for ASCs.

The ASC cost data from GAO used in our comparative analysis are 15 years old and do not contain information on several types of costs. Therefore, the Commission has recommended several times that the Congress require ASCs to submit new cost data to CMS (Medicare Payment Advisory Commission 2018c, Medicare Payment Advisory Commission 2015, Medicare Payment Advisory Commission 2014, Medicare Payment Advisory Commission 2013b, Medicare Payment Advisory Commission 2012, Medicare Payment Advisory Commission 2011b, Medicare Payment Advisory Commission 2010). In each of the last six years, the Commission recommended eliminating the update to the ASC conversion factor, meaning the ASC conversion factor would not change from the previous year. CMS should use cost data to examine whether an existing Medicare price index is an appropriate proxy for ASC costs or an ASC-specific market basket should be developed. A new ASC MB could include the same types of costs that appear in the hospital MB or MEI but with different cost weights that reflect ASCs' unique cost structure. ■

data on the share of ASCs' costs related to employee compensation, medical supplies, medical equipment, building expenses, and other professional expenses (such as legal, accounting, and billing services). CMS could use this information to examine the cost structure of ASCs and determine whether an existing Medicare price index is an appropriate proxy for ASC costs or an ASC-specific MB should be developed.

CMS used the CPI-U to update the ASC conversion factor from 2010 through 2018. Using the CPI-U, CMS increased the ASC conversion factor by 1.4 percent in

2015, 0.3 percent in 2016, 1.9 percent in 2017, and 1.2 percent in 2018. However, CMS has indicated that the CPI-U does not reflect the input costs of ASCs.

CMS has made a significant regulatory change and decided to use the hospital MB as the basis for updating the ASC conversion factor for a five-year period—2019 through 2023. CMS based its decision to use the hospital MB in place of the CPI-U on concerns that the differences in payment rates between the ASC payment system and the OPPS has caused a shift of care from ASCs to HOPDs.

CMS believes that using the same update mechanism for both ASCs and HOPDs could “encourage the migration of services from the hospital setting to the ASC setting and increase the presence of ASCs in health care markets or geographic areas where previously there were none or few, thus promoting better beneficiary access to care” (Centers for Medicare & Medicaid Services 2018). The update to the ASC conversion factor for 2019 is 2.1 percent, which is based on a projected 2.9 percent increase in the hospital MB minus a 0.8 percent reduction for multifactor productivity growth, as mandated by the Patient Protection and Affordable Care Act of 2010.

During the five-year period of using the hospital MB, CMS states that it will:

- assess whether there is a migration of services from hospitals to ASCs and
- assess the possibility of working with stakeholders to collect cost data from ASCs in a minimally burdensome manner and could propose a plan to collect cost data (Centers for Medicare & Medicaid Services 2018).

Beginning with the Commission’s March 2010 report to the Congress, the Commission has stated for several years in comment letters and in published reports that the CPI-U does not likely reflect the current input costs of ASCs (Medicare Payment Advisory Commission 2010). However, the Commission does not support using the hospital MB index as an interim method for updating the ASC conversion factor because evidence indicates that the hospital MB index does not accurately reflect the costs of ASCs (Medicare Payment Advisory Commission 2018a). CMS acknowledges that the ASC cost structure is not identical to that of hospitals because ASCs tend to be single specialty and for profit, and they are not required to comply with the Emergency Medical Treatment and Labor Act of 1986. The Commission concurs with these observations and adds that, relative to hospitals, ASCs are more urban, serve a different mix of patients, have a much higher share of expenses related to medical supplies and drugs, and have a smaller share of employee compensation costs.

The Commission asserts that CMS should forgo the five-year period to assess the feasibility of ASC cost reporting and instead use its authority and resources to act quickly in gathering ASC cost data. ASCs are profitable organizations, and the number of ASCs and the volume

of services continue to grow. Therefore, we believe it is unnecessary for CMS to spend five years assessing the feasibility of collecting cost data from ASCs.

Recommendation

In evaluating a need for an update to the ASC conversion factor for 2020, the Commission balanced the following objectives:

- maintain beneficiaries’ access to ASC services;
- pay providers adequately;
- maintain the sustainability of the Medicare program by appropriately restraining spending on ASC services;
- keep providers under financial pressure to constrain costs; and
- require ASCs to submit cost data.

In balancing these goals, the Commission concludes that the ASC update for 2020 should be eliminated and that the Secretary should collect cost data from ASCs.

RECOMMENDATION 5 - 1

The Congress should eliminate the calendar year 2020 update to the Medicare conversion factor for ambulatory surgical centers.

RECOMMENDATION 5 - 2

The Secretary should require ambulatory surgical centers to report cost data.

RATIONALE 5 - 1 AND 5 - 2

On the basis of our payment adequacy indicators and the importance of maintaining financial pressure on providers to constrain costs, we believe that the ASC conversion factor should not be increased for 2020. That is, the 2020 conversion factor in the ASC payment system should be the same as the conversion factor in 2019. Though we do not have cost data and we have reservations about the measures used within the ASCQR Program, the indicators of payment adequacy for which we have information are positive: The volume of ASC services per beneficiary increased in 2017, the complexity of ASC services provided increased, and the number of ASCs increased. Also, ASCs appear to have adequate access to capital,

ASC quality of care data have trended positive, and Medicare payments to ASCs have continued to grow.

The Commission has persistently recommended that the Secretary collect cost data from ASCs. Cost data would enable CMS and the Commission to examine the growth of ASCs' costs over time and evaluate Medicare payments relative to the costs of an efficient provider, which would help inform decisions about the ASC payment update. Cost data are also needed to evaluate whether an alternative input price index would be an appropriate proxy for ASC costs.

We see no reason why ASCs should not be able to submit cost data. CMS collects cost data from all other institutional providers participating in the Medicare program. To date, the ASC industry has asserted that ASCs are small operations that lack the capacity and accounting expertise to enable them to complete cost reports. However, some of the sectors from which CMS collects cost data are predominantly small providers. Therefore, any ASC should be able to compile and submit a minimum set of cost data. Also, while the majority of the ASC industry consists of freestanding facilities, hospital corporations and other large health care entities have entered the ASC industry in recent years and have the capacity and expertise to complete cost reports. CMS could limit the scope of the cost reporting system to minimize administrative burden on ASCs and the program. In addition, to implement this change, CMS should make cost reporting a condition of ASC participation in the Medicare program.

IMPLICATIONS 5-1 AND 5-2

Spending

- The Secretary has the authority to update the ASC conversion factor and has decided to use the hospital MB index as the basis for updating the conversion factor from 2019 through 2023 (Centers for Medicare & Medicaid Services 2018). The Patient Protection and Affordability Act of 2010 requires that the update factor be reduced by a multifactor productivity measure. The currently projected hospital MB index increase for 2020 is 3.2 percent, and the forecast of productivity growth for 2020 is 0.6 percent, resulting in a projected update of 2.6 percent to the conversion factor for 2020. Relative to current Medicare law, our recommendation would decrease federal spending by between \$50 million and \$250 million in the first year and by less than \$1 billion over five years.

Beneficiary and provider

- Because of the growth in the number of ASCs and the increase in ASCs' revenue from Medicare, we do not anticipate that this recommendation will diminish beneficiaries' access to ASC services or providers' willingness or ability to provide those services.
- ASCs may incur some minimal administrative costs to track and submit cost data, but we believe cost accounting is standard practice in the ASC industry, and ASCs should be able to draw cost data from that source. ■

Endnotes

- 1 The payment rates in the ASC system are determined independently from the payment rates in the PFS. Therefore, it is possible for an office-based procedure to have its payment rate based on the standard method in one year and based on the PFS nonfacility rate the next year, or vice versa.
- 2 GAO surveyed a random sample of 600 ASCs to obtain cost data from 2004. They received reliable cost data from 290 facilities.
- 3 Munnich and Parente (2014) also found that the highest risk patients that underwent the five highest volume outpatient procedures were less likely to have a subsequent visit to an emergency department or a hospital inpatient stay when they received the outpatient procedure in an ASC rather than a hospital.
- 4 For services that CMS has defined as device intensive (at least 30 percent of the cost of the service is attributable to a device), the differences in the payment rates between HOPDs and ASCs are smaller than 94 percent because the reimbursement for the applicable device is the same in ASCs and HOPDs.
- 5 State certificate of need (CON) laws for ASCs appear to affect the number of ASCs in the state. Twenty-seven states and the District of Columbia have CON laws for ASCs. Nine of the 10 states with the fewest ASCs per capita have a CON law in place, while only 4 of the 10 states that have the most ASCs per capita have CON laws. Among these four states, Maryland and Georgia have exceptions in their CON requirements that make it easier to establish new ASCs.
- 6 We define *single-specialty* ASCs as those with more than 67 percent of their Medicare claims in one clinical specialty. We define *multispecialty* ASCs as those with more than 67 percent of their Medicare claims in more than one clinical specialty.
- 7 By statute, coinsurance for a service paid under the OPPTS cannot exceed the hospital inpatient deductible (\$1,364 in 2019). The ASC payment system does not have the same limitation on coinsurance; for a small share of HCPCS codes covered under the ASC payment system, the ASC coinsurance exceeds the inpatient deductible. In these instances, the ASC coinsurance exceeds the OPPTS coinsurance.
- 8 Cost sharing is lower under the ASC payment system for 96.8 percent of HCPCS codes that are covered under the ASC payment system.
- 9 Rather than a full discontinuation of measures ASC–1 through ASC–4, CMS has decided to suspend these four measures. Suspension means that ASCs are no longer required to report data on these measures, but CMS will retain them in the ASCQR Program for possible future use. Patient experience will be assessed using the Consumer Assessment of Healthcare Providers and Systems[®] (CAHPS[®]) survey measures, but implementation of CAHPS measures has been delayed.
- 10 We did not include data for ASC–6 (safe-surgery checklist) because ASC response rates were low, which we assume to be related to CMS discontinuing the measure for 2018.
- 11 CAHPS[®] is a registered trademark of the Agency for Healthcare Research and Quality, a U.S. government agency.
- 12 The Commission also described its principles for a VBP program for ASCs in a letter to the Congress commenting on the Secretary’s report to the Congress on a VBP program for ASCs (Medicare Payment Advisory Commission 2011a).
- 13 Subsequent hospital visits include emergency department services, outpatient observation services, and inpatient services.
- 14 Among the approximately 100,000 ASC discharges associated with subsequent hospital stays within 7 days, roughly two-thirds had subsequent inpatient hospital stays and one-third had subsequent visits to an emergency department (data not shown).
- 15 The margins for ASCs have important differences from the margins in other sectors such as hospitals. In particular, the cost data used to determine margins for most ASCs do not include compensation for physician owners or the taxes paid on that compensation.

References

- Agency for Healthcare Research and Quality. 2018. Ambulatory surgery center survey on patient safety culture database. <https://www.ahrq.gov/sops/quality-patient-safety/patientsafetyculture/asc/index.html>.
- Ambulatory Surgery Center Association. 2017. Benefits of physician ownership. <http://www.ascassociation.org/advancingsurgicalcare/asc/benefitsofphysicianownership>.
- Ambulatory Surgery Center Association. 2012. Letter from William Prentice, Chief Executive Officer, to Marilyn Tavenner, Acting Administrator of the Centers for Medicare & Medicaid Services, regarding CMS–1589–P: Medicare program; proposed changes to the ambulatory surgical center payment system and CY 2013 payment rates. September 4.
- American Cancer Society. 2018. American Cancer Society guideline for colorectal cancer screening. https://www.cancer.org/cancer/colon-rectal-cancer/detection-diagnosis-staging/acs-recommendations.html#written_by.
- American Medical Association. 2017. *Updated data on physician practice arrangements: Physician ownership drops below 50 percent*. Chicago, IL: AMA. <https://www.ama-assn.org/sites/default/files/media-browser/public/health-policy/PRP-2016-physician-benchmark-survey.pdf>.
- Bannow, T. 2018. KKR completes Envision acquisition. *Modern Healthcare*, October 11.
- Barclays. 2018. *Health care services: Initiating coverage of hospital sector*. August 14.
- Berenson, R. A., P. B. Ginsburg, J. B. Christianson, et al. 2012. The growing power of some providers to win steep payment increases from insurers suggests policy remedies may be needed. *Health Affairs* 31, no. 5 (May): 973–981.
- Carey, K. 2015. Price increases were much lower in ambulatory surgery centers than hospital outpatient departments in 2007–12. *Health Affairs* 34, no. 10 (October 1): 1738–1744.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018. Medicare program: Changes to hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs. Final rule. *Federal Register* 83, no. 225 (November 21): 58818–59179.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017. Medicare program: Hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs. Final rule. *Federal Register* 82, no. 217 (November 13): 52356–52637.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. Medicare program: Hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs; organ procurement organization reporting and communication; transplant outcome measures and documentation requirements; electronic health record (EHR) incentive programs; payment to nonexcepted off-campus provider-based department of a hospital; hospital value-based purchasing (VBP) program; establishment of payment rates under the Medicare physician fee schedule for nonexcepted items and services furnished by an off-campus provider-based department of a hospital. Final rule. *Federal Register* 81, no. 219 (November 14): 79562–79892.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2012. Medicare and Medicaid programs: Hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs; electronic reporting pilot; inpatient rehabilitation facilities quality reporting program; revision to quality improvement organization regulations. Final rule. *Federal Register* 77, no. 221 (November 15): 68210–68565.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2011. Medicare and Medicaid programs: Hospital outpatient prospective payment; ambulatory surgical center payment; hospital value-based purchasing program; physician self-referral; and patient notification requirements in provider agreements. Final rule. *Federal Register* 76, no. 230 (November 30): 74122–74584.
- Dickson, V. 2018a. HHS proposes new ambulatory surgery center safety database. *Modern Healthcare*, July 11.
- Dickson, V. 2018b. White House OKs ambulatory surgery center safety database. *Modern Healthcare*, September 17.
- Dyrda, L. 2018a. 39 new ASCs were opened or announced in Q3. *Becker's ASC Review*, October 11.
- Dyrda, L. 2018b. Where the 67 new ASCs are being built and opened in the 1st half of 2018. *Becker's ASC Review*, July 16.
- Government Accountability Office. 2006. *Medicare: Payment for ambulatory surgical centers should be based on the hospital outpatient payment system*. Washington, DC: GAO.
- Hair, B., P. Hussey, and B. Wynn. 2012. A comparison of ambulatory perioperative times in hospitals and freestanding centers. *American Journal of Surgery* 204, no. 1 (July): 23–27.

- Hollenbeck, B. K., R. L. Dunn, A. M. Suskind, et al. 2014. Ambulatory surgery centers and outpatient procedure use among Medicare beneficiaries. *Medical Care* 52, no. 10 (October): 926–931.
- Hollingsworth, J. M., S. L. Krein, Z. Ye, et al. 2011. Opening of ambulatory surgery centers and procedure use in elderly patients: Data from Florida. *Archives of Surgery* 146, no. 2 (February): 187–193.
- Hollingsworth, J. M., Z. Ye, S. A. Strobe, et al. 2010. Physician-ownership of ambulatory surgery centers linked to higher volume of surgeries. *Health Affairs* 29, no. 4 (April): 683–689.
- Jacobson, G. 2014. Tenet CEO Trevor Fetter sees big growth in outpatient centers. *Dallas News*, November 4.
- Japsen, B. 2018. Tenet Healthcare signals outpatient acquisitions ahead amid value-based care push. *Modern Healthcare*, February 27.
- Kacik, A. 2018. Tenet ups stake in ambulatory surgery center chain. *Modern Healthcare*, April 26.
- Kochman, B. 2014. Montefiore Medical Center opens 12-story bedless outpatient center in the Bronx. *New York Daily News*, November 10.
- Koenig, L., and Q. Gu. 2013. Growth of ambulatory surgical centers, surgery volume, and savings to Medicare. *American Journal of Gastroenterology* 108: 10–15.
- Kutscher, B. 2015. Tenet makes big ambulatory play with deal for majority United Surgical Partners stake. *Modern Healthcare*, March 23.
- Levingston, C. 2014. Premier Health buys Middletown surgery center. *Journal-News*, September 18.
- Mathews, A. W. 2017. UnitedHealth's Optum to acquire Surgical Care Affiliates for \$2.3 billion. *Wall Street Journal*, January 9.
- Mathews, A. W. 2012. Same doctor visit, double the cost: Insurers say rates can surge after hospitals buy private physician practices; Medicare spending rises, too. *Wall Street Journal*, August 27.
- Medical Group Management Association. 2009. *Ambulatory surgery center performance survey: 2009 report based on 2008 data*. Washington, DC: MGMA.
- Medicare Payment Advisory Commission. 2018a. Comment letter on CMS's 2019 proposed rule for the hospital outpatient and ambulatory surgical center payment systems, September 21. http://www.medpac.gov/docs/default-source/comment-letters/09212018_opps_asc_2019_medpac_comment_v2_sec.pdf?sfvrsn=0.
- Medicare Payment Advisory Commission. 2018b. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2018c. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013a. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2011a. MedPAC comment letter on the Department of Health and Human Services' *Report to the Congress: Medicare Ambulatory Surgical Center Value-Based Purchasing Implementation Plan*, August 30.
- Medicare Payment Advisory Commission. 2011b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2010. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Merritt Hawkins. 2014. *Survey of 20,000 U.S. Physicians: 80% of doctors are over-extended or at full-capacity*. Dallas, TX: Merritt Hawkins. http://www.merrithawkins.com/uploadedFiles/MerrittHawkins/Clients/2014_Physicians_Foundation_Merritt_Hawkins_Release%282%29.pdf.
- Mitchell, J. M. 2010. Effect of physician ownership of specialty hospitals and ambulatory surgery centers on frequency of use of outpatient orthopedic surgery. *Archives of Surgery* 145, no. 8 (August): 732–738.
- Moody's Investors Service. 2018. Non-profit and public health care: Medians—Operating pressures persist as growth in expenses exceeds revenue. August 28.
- Moody, E. 2014. Beaufort Memorial Hospital becomes full owner of Surgery Center of Beaufort. *The State*, December 2.

Morningstar Document Research. 2018a. Form 10–K: Tenet Healthcare Corporation. February 26.

Morningstar Document Research. 2018b. HCA Holdings, for 10–K. February 23.

Munnich, E. L., and S. T. Parente. 2014. Procedures take less time at ambulatory surgery centers, keeping costs down and ability to meet demand up. *Health Affairs* 33, no. 5 (May): 764–769.

Pennsylvania Health Care Cost Containment Council. 2018. *Financial analysis 2017: Volume 2, ambulatory surgery centers*. Harrisburg, PA: PHC4.

Physicians Advocacy Institute. 2018. Updated physician acquisition study: National and regional changes in physician employment, 2012–2016. <http://www.physiciansadvocacyinstitute.org/Portals/0/assets/docs/2016-PAI-Physician-Employment-Study-Final.pdf>.

Pinto, R. Z., C. G. Maher, M. L. Ferreira, et al. 2012. Epidural corticosteroid injections in the management of sciatica: A systematic review and meta-analysis. *Annals of Internal Medicine* 157, no. 12 (December 18): 865–877.

Robinson, J. C., T. Brown, and C. Whaley. 2015. Reference-based benefit design changes consumers’ choices and employers’ payments for ambulatory surgery. *Health Affairs* 34, no. 3 (March 1): 415–422.

Schaefer, M. K., M. Jhung, M. Dahl, et al. 2010. Infection control assessment of ambulatory surgical centers. *Journal of the American Medical Association* 303, no. 22 (June 9): 2273–2279.

Sowa, T. 2014. Providence medical center in Spokane Valley nearly ready for patients. *The Spokesman-Review*, April 12.

Strope, S. A., S. Daignault, J. M. Hollingsworth, et al. 2009. Physician ownership of ambulatory surgery centers and practice patterns for urological surgery: Evidence from the state of Florida. *Medical Care* 47, no. 4 (April): 403–410.

Surgery Partners Inc. 2018a. Surgery Partners, Inc. announces closing of new \$180 million incremental term loan. Press release. October 24. <https://globenewswire.com/news-release/2018/10/24/1626236/0/en/Surgery-Partners-Inc-Announces-Closing-of-New-180-Million-Incremental-Term-Loan.html>.

Surgery Partners Inc. 2018b. Surgery Partners, Inc. announces third quarter 2018 results. Press release. November 7. <http://ir.surgerypartners.com/news-releases/news-release-details/surgery-partners-inc-announces-third-quarter-2018-results>.

Trentman, T. L., J. T. Mueller, R. J. Gray, et al. 2010. Outpatient surgery performed in an ambulatory surgery center versus a hospital: Comparison of perioperative time intervals. *American Journal of Surgery* 200, no. 1 (July): 64–67.

CHAPTER

6

Outpatient dialysis services

R E C O M M E N D A T I O N

- 6** For calendar year (CY) 2020, the Congress should update the CY 2019 Medicare end-stage renal disease prospective payment system base rate by the amount determined in current law.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Outpatient dialysis services

Chapter summary

Outpatient dialysis services are used to treat the majority of individuals with end-stage renal disease (ESRD). In 2017, nearly 395,000 beneficiaries with ESRD on dialysis were covered under fee-for-service (FFS) Medicare and received dialysis from approximately 7,000 dialysis facilities. Since 2011, Medicare has paid for outpatient dialysis services using a prospective payment system (PPS) that is based on a bundle of services. The bundle includes dialysis drugs and ESRD-related clinical laboratory tests that were previously paid separately. In 2017, Medicare expenditures for outpatient dialysis services were \$11.4 billion, a 0.4 percent increase over 2016 expenditures.

Assessment of payment adequacy

Our payment adequacy indicators for outpatient dialysis services are generally positive.

Beneficiaries' access to care—Measures of the capacity and supply of providers, beneficiaries' ability to obtain care, and changes in the volume of services suggest payments are adequate.

- **Capacity and supply of providers**—Dialysis facilities appear to have the capacity to meet demand. Between 2016 and 2017, the number of dialysis treatment stations grew faster than the number of FFS dialysis beneficiaries.
- **Volume of services**—Between 2016 and 2017, growth in the number of FFS dialysis beneficiaries and total number of treatments was relatively

In this chapter

- Are Medicare payments adequate in 2019?
.....
- How should Medicare payments change in 2020?
.....

flat. At the same time, dialysis drug use (including erythropoiesis-stimulating agents (ESAs), which are used in anemia management) continued to decline, but at a slower rate than during the initial years of the dialysis PPS (2011 and 2012). The dialysis PPS created an incentive for providers to be more judicious about their provision of dialysis drugs.

- ***The marginal profit***—Medicare payments exceeded marginal costs by about 17 percent in 2017, suggesting that providers have an incentive to treat Medicare beneficiaries.

Quality of care—Between 2012 and 2017, there were declines in mortality, hospitalization, and 30-day readmission rates, though the proportion of FFS dialysis beneficiaries using the emergency department increased. With regard to anemia management, negative cardiovascular outcomes associated with high ESA use generally declined, and blood transfusion use, which initially increased under the PPS, has trended downward since 2013. Between 2012 and 2017, beneficiaries' use of home dialysis, which is associated with improved patient satisfaction and quality of life, increased from 9.5 percent to 11.0 percent of dialysis beneficiaries. Since 2014, a shortage of dialysis solutions needed for the predominant home method, peritoneal dialysis, has slowed this modality's growth. The first-year results of the ESRD Seamless Care Organizations (ESCOs), modeled like accountable care organizations, were positive; for example, there were fewer inpatient admissions for beneficiaries, and all 13 ESCOs produced savings relative to the benchmarks. It is not clear whether this trend will continue since the results for 2017 and 2018 are not yet available.

Providers' access to capital—Information from investment analysts suggests that access to capital for dialysis providers continues to be strong. The number of facilities, particularly for-profit facilities, continues to increase. Under the dialysis PPS, the two largest dialysis organizations have grown through acquisitions and mergers with midsized dialysis organizations.

Medicare payments and providers' costs—Our analysis of Medicare payments and costs is based on 2016 and 2017 claims and cost report data submitted to CMS by freestanding dialysis facilities. During this period, cost per treatment increased by 2 percent, while Medicare payment per treatment increased by 0.6 percent. We estimate that the aggregate Medicare margin was –1.1 percent in 2017, and the 2019 Medicare margin is projected at –0.4 percent. The Commission's recommendation for 2020 is that the Congress update the ESRD PPS base rate by the amount determined under current law. ■

Dialysis treatment choices

Dialysis replaces the filtering function of the kidneys when they fail. The two types of dialysis—hemodialysis and peritoneal dialysis (PD)—remove waste products from the bloodstream differently. Patients may select various protocols for each of these two dialysis types.

Most dialysis patients travel to a treatment facility to undergo hemodialysis three times per week, although patients can also undergo hemodialysis at home. Hemodialysis uses an artificial membrane encased in a dialyzer to filter the patient's blood. Because of recent clinical findings, there is increased interest in more frequent hemodialysis, administered five or more times per week while the patient sleeps, and short (two to three hours per treatment) daily dialysis administered during the day. Research also has increased interest in the use of “every-other-day” hemodialysis; reducing the two-day gap in thrice-weekly hemodialysis could be linked to improved outcomes.

PD, the most common form of home dialysis, uses the lining of the abdomen (peritoneum) as a filter to clear wastes and extra fluid and is usually performed

independently in the patient's home or workplace five to seven days a week. During treatments, a cleansing fluid (dialysate) is infused into the patient's abdomen through a catheter. This infusion process (an exchange) is done either manually (continuous ambulatory peritoneal dialysis) or using a machine (automated peritoneal dialysis).

Each dialysis method has advantages and disadvantages—no one method is best for everyone. People choose a particular dialysis method for many reasons, including quality of life, patients' awareness of different treatment methods and personal preferences, and physician training and recommendations. The use of home dialysis has grown since 2009, a trend that has continued under the dialysis prospective payment system. Some patients switch methods when their conditions or needs change. Although most patients still undergo in-center dialysis, home dialysis remains a viable option for many patients because of such advantages as increased patient satisfaction, better health-related quality of life, and fewer transportation challenges compared with in-center dialysis. ■

Background

End-stage renal disease (ESRD) is the last stage of chronic kidney disease and is characterized by permanent irreversible kidney failure. Patients with ESRD include those who are treated with dialysis—a process that removes wastes and fluid from the body—and those who have a functioning kidney transplant. Because of the limited number of kidneys available for transplantation and the variation in patients' suitability for transplantation, about 70 percent of ESRD patients undergo maintenance dialysis (see text box on dialysis treatment choices). Patients receive additional items and services related to their dialysis treatments, including dialysis drugs to treat conditions such as anemia and bone disease resulting from the loss of kidney function.

In 2017, nearly 395,000 ESRD beneficiaries on dialysis were covered under fee-for-service (FFS) Medicare and

received dialysis from about 7,000 dialysis facilities.¹ Since 2011, Medicare has been paying facilities using a prospective payment system (PPS) payment bundle that includes dialysis drugs (for which facilities previously received separate payments) and services for which other Medicare providers (such as clinical laboratories) previously received separate payments. In 2017, Medicare Part B spending for outpatient dialysis services included in the payment bundle was \$11.4 billion. In addition, Part D payments for dialysis drugs that are not yet included in the PPS payment bundle—a calcimimetic and multiple phosphate binders—totaled nearly \$2.3 billion in 2016 (the most recent data available).

Characteristics of fee-for-service dialysis beneficiaries, 2017

The 1972 amendments to the Social Security Act extended Medicare benefits to people with ESRD, including those under age 65. For an individual with ESRD to

**TABLE
6-1****FFS dialysis beneficiaries are disproportionately younger, male, and African American compared with all Medicare FFS beneficiaries, 2017**

	Percent of FFS:	
	Dialysis beneficiaries	All beneficiaries
Age		
Under 45 years	11%	4%
45–64 years	38	12
65–74 years	28	50
75–84 years	18	23
85+ years	6	11
Sex		
Male	56	47
Female	44	53
Race		
White	48	81
African American	36	10
All others	16	9
Residence, by type of county		
Urban	84	80
Micropolitan	10	11
Rural, adjacent to urban	5	5
Rural, not adjacent to urban	2	3
Frontier	1	1

Note: FFS (fee-for-service). Beneficiary location reflects the beneficiary's county of residence in one of four categories (urban, micropolitan, rural adjacent to urban, and rural nonadjacent to urban) based on an aggregation of the urban influence codes. Frontier counties have six or fewer people per square mile. Totals may not sum to 100 percent due to rounding.

Source: Data compiled by MedPAC from enrollment data and claims submitted by dialysis facilities to CMS.

qualify for Medicare, he or she must be fully or currently insured under the Social Security or Railroad Retirement program or be the spouse or dependent child of an eligible beneficiary.²

Most dialysis beneficiaries have FFS coverage. The statute currently prohibits enrollment of individuals with ESRD in Medicare Advantage (MA) plans. However, beneficiaries who were enrolled in a managed care plan before receiving an ESRD diagnosis can remain in the plan after

they are diagnosed. In addition, Medicare permits MA enrollment of ESRD beneficiaries with a functioning kidney transplant. In 2017, about 19 percent of ESRD beneficiaries were enrolled in MA plans; by comparison, just over 31 percent of all Medicare beneficiaries were enrolled in MA plans. In 2000, the Commission recommended that the Congress lift the prohibition on ESRD beneficiaries enrolling in MA (Medicare Payment Advisory Commission 2000). The 21st Century Cures Act of 2016 lifts the prohibition on ESRD beneficiaries enrolling in MA beginning in 2021.

In 2017, most FFS dialysis beneficiaries (about 90 percent) were enrolled in Part D or had other sources of creditable drug coverage. About 10 percent of FFS dialysis beneficiaries in 2017 had either no Part D coverage or coverage less generous than Part D's standard benefit. About 70 percent of FFS dialysis beneficiaries with Part D coverage received the low-income subsidy in 2017.

Compared with all Medicare FFS beneficiaries, FFS dialysis beneficiaries are disproportionately young, male, and African American (Table 6-1). In 2017, 77 percent of FFS dialysis beneficiaries were less than 75 years old, 56 percent were male, and 36 percent were African American. By comparison, of all FFS Medicare beneficiaries, 66 percent were less than 75 years old, 47 percent were male, and 10 percent were African American. A greater share of dialysis beneficiaries resided in urban areas compared with all FFS beneficiaries (84 percent vs. 80 percent, respectively). FFS dialysis beneficiaries were more likely to be dually eligible for Medicaid and Medicare compared with all Medicare FFS beneficiaries (48 percent vs. 18 percent, respectively; data not shown).

The adjusted rate (or incidence) of new ESRD cases (which includes patients of all types of health coverage who initiate dialysis or receive a kidney transplant) rose sharply in the 1980s and 1990s, leveled off in the early 2000s, and has declined slightly since its peak in 2006. Between 2006 and 2016 (most recent year available), the adjusted incidence rate decreased by 1 percent per year, from 399 per million people to 355 per million people (United States Renal Data System 2018).³ We estimate that in 2017, about 83,000 FFS beneficiaries were new to dialysis, and nearly half (45 percent) were under age 65 and thus entitled to Medicare based on ESRD (with or without disability).⁴

Better primary care management of the risk factors for chronic kidney disease (CKD)—particularly hypertension

and diabetes, which together are the primary causes of roughly 7 of 10 new ESRD cases—can help prevent or delay the illness’s onset. Payers and dialysis providers are testing interventions among CKD patients to improve their clinical outcomes (e.g., by reducing hospitalizations); prevent or slow kidney disease progression; and increase their preparedness for ESRD (e.g., by educating patients about treatment alternatives, including transplantation and home dialysis).⁵ The Commission has long argued that primary care services are undervalued in Medicare’s fee schedule and has made recommendations to support primary care, which in turn could support better management of kidney disease risk factors.

Since 2011, Medicare has paid for dialysis services under the dialysis PPS

To treat ESRD, dialysis beneficiaries receive care from two principal providers: (1) the clinicians (typically nephrologists) who prescribe and manage the provision of dialysis and establish the beneficiary’s plan of care and (2) facilities that provide dialysis treatments in a dialysis center or support and supervise the care of beneficiaries on home dialysis. Medicare uses different methods to pay for ESRD clinician and facility services. Clinicians receive a monthly capitated payment established in the Part B physician fee schedule for outpatient dialysis–related management services, which varies based on the number of visits per month, the beneficiary’s age, and whether the beneficiary receives dialysis in a facility or at home.⁶ While our work in this report focuses on Medicare’s payments to facilities, it is important to recognize that facilities and clinicians collaborate to care for dialysis beneficiaries. One acknowledgment of the need for collaboration is Medicare’s Comprehensive ESRD Care Model, a shared savings program that began in 2015, involving facilities and nephrologists.

To improve provider efficiency, in 2011, Medicare began a PPS for outpatient dialysis services that expanded the prospective payment bundle to include dialysis drugs, laboratory tests, and other ESRD treatment items and services that were previously billable separately. In addition, effective in 2012, outpatient dialysis payments are linked to the quality of care that dialysis facilities provide. These changes, mandated by the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA), were based on the Commission’s recommendation to modernize the outpatient dialysis payment system (Medicare Payment Advisory Commission 2001). We contended that Medicare

could provide incentives for the efficient delivery of quality care by broadening the payment bundle existing at the time (to include commonly furnished drugs and services that providers formerly billed separately) and by linking payment to quality. The PPS is designed to create incentives for facilities to provide services more efficiently by reducing previous incentives, inherent in the former payment method, to overuse drugs.

Under the outpatient dialysis PPS, the unit of payment is a single dialysis treatment. For adult dialysis beneficiaries (18 years or older), the base payment rate does not differ by type of dialysis (i.e., hemodialysis vs. peritoneal dialysis), but rather by patient-level characteristics (age, body measurement characteristics, onset of dialysis, and selected acute and chronic comorbidities) and facility-level factors (low treatment volume, rural location, and local input prices).⁷ Medicare pays facilities furnishing dialysis treatments in the facility or in a patient’s home for up to three treatments per week, unless there is documented medical justification for more than three weekly treatments. In addition, the ESRD Quality Incentive Program holds facilities responsible for the quality of care they provide; in 2018, the program used 11 clinical measures and 5 reporting measures. Up to 2 percent of a facility’s payment is linked to these quality measures. The Commission’s *Payment Basics* provides more information about Medicare’s method of paying for outpatient dialysis services (available at http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_dialysis_final_sec.pdf?sfvrsn=0).

Since it was implemented in 2011, the outpatient dialysis PPS has undergone several significant changes. In 2014, CMS rebased the base payment rate, and in 2016, the agency recalibrated and redefined the payment adjusters. A text box on the dialysis PPS (p. 161) summarizes these two significant changes.

The most recent change to the dialysis PPS will occur in 2020, when CMS expands its transitional drug add-on payment adjustment (TDAPA); the agency will pay providers separately for all dialysis drugs and biologics, including biosimilars and generic drugs, that the Food and Drug Administration approves on or after January 1, 2020. Payment will equal the product’s average sales price. There will be no reduction to the base rate even when a new dialysis product falls into 1 of the 11 functional categories of products that have been included in the payment bundle since 2011. The TDAPA will apply to a

new product that fits into one of the existing functional categories for two years;⁸ thereafter, the product will be included in the PPS payment bundle without any change to the base rate. For a product that does not fit into one of the existing functional categories, the TDAPA will apply until sufficient claims data for rate-setting analysis are available, but not for less than two years. Once sufficient claims data are available, CMS will modify the base rate, if appropriate, to account for the new product in the payment bundle.

In our comment letter to CMS regarding the agency's TDAPA proposal, the Commission strongly urged CMS not to proceed with its proposal to apply the policy to new renal dialysis drugs that fit into a functional category (including composite rate drugs, which have never been paid separately by Medicare) and urged the agency to withdraw the proposal (Medicare Payment Advisory Commission 2018a). The Commission believes that it is important to maintain the structure of the dialysis PPS and not create policies that would unbundle services covered under the PPS or create incentives that encourage high launch prices of new drugs and technologies. Access to new dialysis products is favorable under the dialysis PPS. For example, in 2015, nearly one-quarter of all dialysis beneficiaries received epoetin beta, which was introduced to the U.S. market in that year. The Commission's comment letter can be found at http://www.medpac.gov/docs/default-source/comment-letters/08312018_esrd_cy2019_dme_medpac_comment_v2_sec.pdf?sfvrsn=0.

In our comment letter, we objected to the TDAPA proposal because:

- Although new dialysis drugs could improve patient outcomes, the proposal does not require that the new drugs be more effective than current treatments to qualify for the TDAPA. Under CMS's policy, the only proposed standard for paying the TDAPA is that a drug is new.
- The policy duplicates payment that is already made as part of the dialysis PPS payment bundle. Beneficiaries and taxpayers already pay for drugs in each functional category because they are included in the payment bundle. Essentially, the TDAPA policy will make a second (duplicative) payment for new drugs that treat the same clinical condition as drugs already included in the payment bundle.

- The policy would undermine competition with existing drugs included in the ESRD bundle. The Commission has documented the changes in drug use due to increased price competition with the vitamin D and ESA therapeutic classes (Medicare Payment Advisory Commission 2018c).

In our comment letter, we asserted that if CMS decides to proceed with this proposed policy, at a minimum several modifications to the proposal would be necessary:

- CMS should require that the new product be an advance in medical technology that substantially improves beneficiaries' outcomes relative to technologies in the PPS payment bundle. CMS could structure such a policy similar to the standard that the agency uses to pay for new technologies under the inpatient PPS and devices under the outpatient PPS. CMS elected to not include this modification to the final policy, stating that (1) its final policy will provide an opportunity for new drugs to compete with other similar drugs in the market, which could result in lower prices for all drugs; and (2) the effectiveness of drugs can depend on age, gender, race, genetic predisposition, and comorbidities (Centers for Medicare & Medicaid Services 2018b).
- CMS should not make duplicative payments for a new product (assigned to a functional category) by paying under the TDAPA for two years *and* paying for its functional category under the dialysis PPS base rate. For example, the agency could reduce the TDAPA amount to reflect the amount already included in the base rate. In addition, CMS could consider paying a reduced share of the estimated incremental cost of the new drug as a way to share risk with dialysis providers and provide some disincentive for the establishment of high launch prices. CMS elected to not include these modifications to the final policy, stating that the policy is temporary and not duplicative because, at the end of the TDAPA two-year period, there is no additional money added to the base rate for those drugs that fall within an existing functional category (Centers for Medicare & Medicaid Services 2018b).
- CMS should publish in the final rule an estimate of the increase in beneficiaries' and taxpayers' spending due to the proposed policy change and the method used to develop the estimate. According to the agency, an estimate of expected spending changes was not

Significant changes to the outpatient dialysis PPS in 2014 and 2016

Since its implementation in 2011, the dialysis prospective payment system (PPS) has undergone two significant changes, in 2014 and 2016. First, effective 2014, the base payment rate was rebased to account for the decline in dialysis drug use under the dialysis PPS. Based on statutory and regulatory changes, CMS set the 2014 base payment at \$239.02. The Commission's March 2014 report to the Congress provides more information about the rebasing of the dialysis base payment rate (available at http://medpac.gov/docs/default-source/reports/mar14_ch06.pdf?sfvrsn=0).

Second, beginning in 2016, CMS uses recalibrated and redefined patient-level and facility-level payment adjustments to calculate each patient's adjusted

payment per treatment. These adjusters are applied to the base payment rate to account for factors that can affect treatment costs. More information about these payment changes can be found in the Commission's March 2016 report to the Congress (available at http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_17_dialysis_finald8a311adfa9c665e80adff00009edf9c.pdf?sfvrsn=0). The Commission's methodological concerns about these patient-level and facility-level refinements can be found in our comment letter to CMS (available at <http://medpac.gov/docs/default-source/comment-letters/medpac-comment-on-cms-s-proposed-rule-on-the-end-stage-renal-disease-prospective-payment-system-and-.pdf?sfvrsn=0>). ■

included because the TDAPA policy addresses drugs and biologics that have not been developed (Centers for Medicare & Medicaid Services 2018b).

the volume of services, and the marginal profitability of Medicare dialysis beneficiaries under the PPS—shows that beneficiaries' access to care remains favorable.

Are Medicare payments adequate in 2019?

To address whether payments for 2019 are adequate to cover the costs that efficient providers incur and how much providers' costs should change in the update year (2020), we examine several indicators of payment adequacy. We assess beneficiaries' access to care by examining the capacity of dialysis facilities and changes over time in the volume of services provided. We also examine quality of care, providers' access to capital, and the relationship between Medicare's payments and facilities' costs. Most of our payment adequacy indicators for dialysis services are positive.

Beneficiaries' access to care: Indicators continue to be favorable

Our analysis of access indicators—including the capacity of providers to meet beneficiary demand, changes in

Capacity has kept pace with patient demand

Growth in the number of dialysis facilities and treatment stations alongside growth in the number of dialysis beneficiaries suggests that, between 2012 and 2016, provider capacity kept up with demand for care. During that period, the number of facilities increased annually by 5 percent; facilities' capacity to provide care—as measured by dialysis treatment stations—grew 4 percent annually (Table 6-2, p. 162). By contrast, between 2012 and 2016, the number of FFS dialysis beneficiaries grew 1 percent annually (data not shown).⁹ In the same period, capacity at facilities that were freestanding and for profit each grew by 5 percent annually, while capacity at facilities that were hospital based and nonprofit decreased annually (–5 percent and –1 percent, respectively). Between 2012 and 2016, capacity at urban facilities grew 4 percent per year, while capacity at all rural facilities grew about 2 percent per year. Between 2016 and 2017, total dialysis capacity grew by 3 percent, while the number of FFS dialysis beneficiaries grew more slowly (by 0.4 percent; data not shown).

**TABLE
6-2****Increasing number and capacity of freestanding, for-profit, and largest dialysis organizations**

	2017				Average annual percent change			
	Total number of FFS treatments (in millions)	Total number of facilities	Total number of stations	Mean number of stations	Number of facilities		Number of stations	
					2012–2016	2016–2017	2012–2016	2016–2017
All	45.3	7,014	120,900	17	5%	4%	4%	3%
Percent of total								
Freestanding	95%	94%	95%	17	6	4	5	4
Hospital based	5	6	5	13	–4	–2	–5	–4
Urban	86	82	85	18	5	5	4	4
Micropolitan	10	11	10	16	2	1	2	0.5
Rural, adjacent to urban	3	4	3	13	2	2	2	0.2
Rural, not adjacent to urban	1	2	2	11	3	0	3	–0.3
Frontier	0.2	0.5	0.3	9	3	3	3	–1
For profit	91	88	89	17	6	5	5	4
Nonprofit	9	12	11	16	–1	–2	–1	–2
Two largest dialysis organizations	76	73	74	18	6	6	5	5
All others	24	27	26	16	2	–1	2	–2

Note: FFS (fee-for-service). Provider location reflects the county where the provider is located in one of four categories (urban, micropolitan, rural adjacent to urban, and rural nonadjacent to urban) based on an aggregation of the urban influence codes. Frontier counties have six or fewer people per square mile. Totals may not sum to 100 percent due to rounding.

Source: Compiled by MedPAC from the Dialysis Compare database from CMS and claims submitted by dialysis facilities to CMS.

Providers of outpatient dialysis services

In 2017, there were roughly 7,000 dialysis facilities in the United States that furnished about 45.3 million Medicare-paid treatments to FFS dialysis beneficiaries. Medicare FFS accounted for about 62 percent of all treatments furnished in 2017.¹⁰ According to CMS facility survey data, since the late 1980s, for-profit, freestanding facilities have provided the majority of dialysis treatments. In 2017, freestanding facilities furnished 95 percent of FFS treatments, and for-profit facilities furnished about 91 percent (Table 6-2). In 2017, the capacity of facilities in urban and rural areas was generally consistent with where FFS dialysis beneficiaries lived.

Two large dialysis organizations (LDOs) dominate the dialysis industry. In 2017, these LDOs accounted for about 73 percent of facilities and 76 percent of Medicare treatments. In addition to operating most dialysis facilities, the two LDOs are each vertically integrated. Both organizations operate an ESRD-related laboratory, a pharmacy, and one or more centers that provide vascular access services; they provide ESRD-related disease management services; and they operate dialysis facilities internationally. One LDO manufactures and distributes renal-related pharmaceutical products (e.g., phosphate binders), is the leading supplier of dialysis products (such

as hemodialysis machines and dialyzers) to other dialysis companies, and operates a Phase I–IV drug and device clinical development company that focuses on the clinical development of new renal therapies.

Types of facilities that closed and their effect on beneficiaries' access to care

Each year, we assess the types of facilities that closed and whether certain groups of Medicare dialysis beneficiaries are disproportionately affected by facility closures. Using facilities' claims submitted to CMS and CMS's Dialysis Compare database and the Medicare Provider of Services file, we compared the characteristics of beneficiaries treated at facilities that closed in 2016 with those at facilities that provided dialysis in 2016 and 2017, the most current years for which complete data are available.

Between 2016 and 2017, the number of dialysis treatment stations—a measure of providers' capacity—increased by 3 percent. There was a net increase in the number of facilities that were freestanding, for profit, and located in both urban and rural areas. Compared with facilities that treated beneficiaries in both years, facilities that closed in 2016 (about 40 facilities) were more likely to be hospital based, nonprofit, and smaller (as measured by the number of dialysis treatment stations), which is consistent with long-term trends in the supply of dialysis providers (Table 6-2).

According to our analysis, few dialysis FFS beneficiaries (roughly 1,600 individuals) were affected by facility closures in 2016. Our analysis found that beneficiary groups who were disproportionately affected included beneficiaries who were African American and younger (ages 45 to 64). By contrast, findings from our prior three analyses found that groups disproportionately affected by closures included beneficiaries who were White and older (Medicare Payment Advisory Commission 2018c, Medicare Payment Advisory Commission 2017, Medicare Payment Advisory Commission 2016b). However, less than 1 percent of FFS beneficiaries in these two groups were affected by facility closures. Our analysis of claims data suggests that beneficiaries affected by these closures obtained care elsewhere.

Volume of services

To assess changes in the volume of dialysis services, we examined recent trends in the number of dialysis treatments provided to beneficiaries and in the use of injectable drugs administered during dialysis.

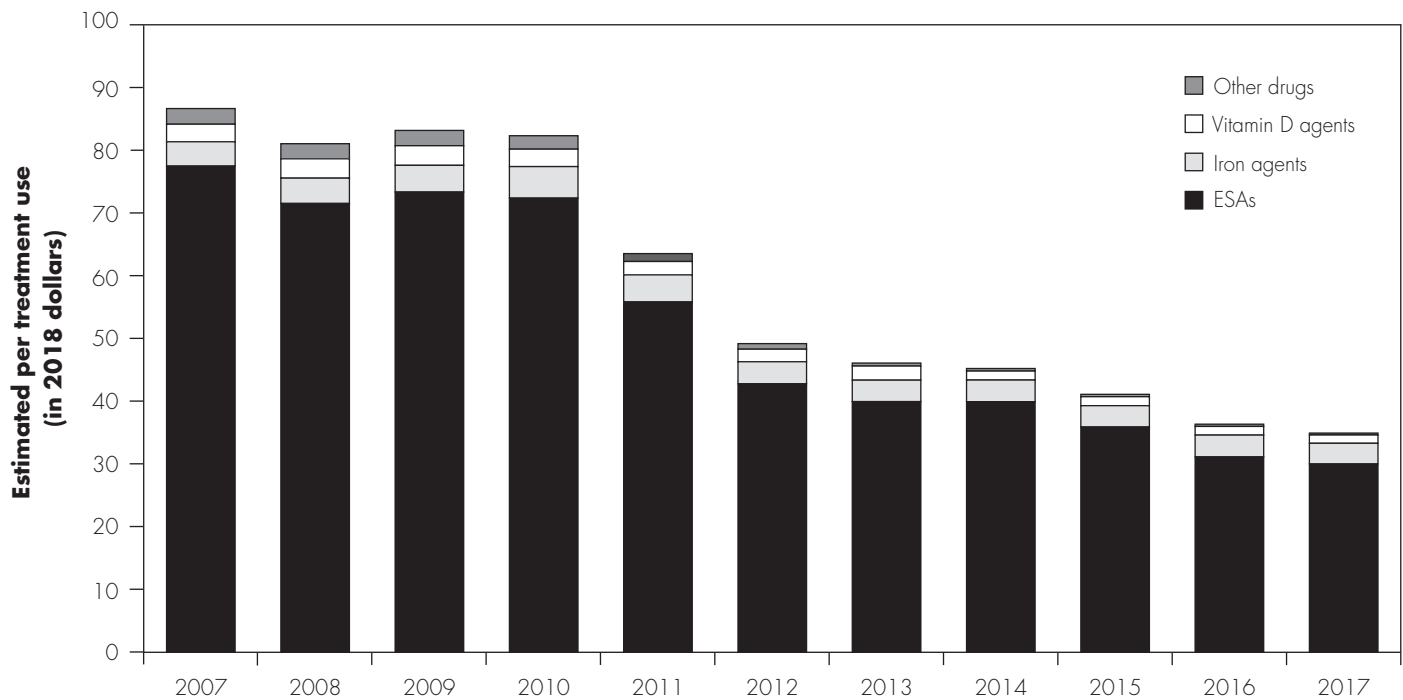
Trends in number of dialysis treatments provided

Between 2016 and 2017, there was little change in the number of FFS dialysis beneficiaries (0.4 percent) and total Medicare-covered dialysis treatments (45.3 million treatments in each year).¹¹ The number of nonannualized dialysis treatments per beneficiary remained steady at 115. Over the most recent five-year period (2012 to 2017), the number of FFS dialysis beneficiaries and total dialysis treatments each increased by 1 percent per year, while the number of nonannualized treatments per beneficiary declined from 116 to 115. The slight decline in per beneficiary treatment growth may be associated with:

- CMS's restatement (in the rule-making process) of its policy for paying for dialysis furnished more than thrice weekly (Centers for Medicare & Medicaid Services 2014). The agency said that facilities must provide medical justification to be paid for furnishing more than three dialysis treatments per week and that the choice of dialysis modalities that require more than three treatments per week does not constitute medical justification.
- In 2015, CMS's contractors issued local coverage determinations (LCDs) that required certain conditions, including heart failure, to be reported on dialysis facility claims for Medicare to cover and pay for dialysis treatments exceeding thrice weekly (Centers for Medicare & Medicaid Services 2018b).
- In 2017, CMS's contractors issued draft LCDs that would have covered and paid for dialysis treatments more than thrice weekly only for acute conditions outside the patient's plan of care; these LCDs have yet to be finalized.
- In 2017, there was one fewer dialysis treatment day (based on a thrice weekly treatment schedule) compared with 2012.

Use of most dialysis drugs has declined under the outpatient dialysis PPS

When CMS broadened the payment bundle in 2011 to include separately billable dialysis-related drugs, the agency set the PPS payment rate based on a per treatment basis using claims data from 2007. In 2014, to account for the decline in dialysis drug use under the dialysis PPS, the statute required that CMS rebase the PPS base rate by comparing drug use in 2007 with such use in 2012. Subsequently, we examined changes between 2007 and

**FIGURE
6-1****Use of dialysis drugs has declined under the outpatient dialysis PPS**

Note: PPS (prospective payment system), ESA (erythropoiesis-stimulating agent). Dollars per treatment calculated by multiplying drug units reported on claims by 2018 average sales price. Drugs included are epoetin alfa, epoetin beta, darbepoetin (ESAs); iron sucrose, sodium ferric gluconate, ferumoxytol, ferric carboxymaltose (iron agents); calcitriol, doxercalciferol, paricalcitol (vitamin D agents); daptomycin, vancomycin, alteplase, levocarnitine (all other drugs).

Source: MedPAC analysis of 100 percent claims submitted by dialysis facilities to CMS.

2017 (the most current year for which complete data are available) in the use per treatment of the leading dialysis drugs and aggregated them into four therapeutic classes—erythropoiesis-stimulating agents (ESAs), iron agents, vitamin D agents, and antibiotics.¹² The dialysis PPS increased the incentive for providers to be more judicious in providing dialysis drugs included in the payment bundle. Under the prior payment method, dialysis drugs were paid according to the number of units of the drug administered: In other words, the more units of a drug provided, the higher the Medicare payment.

As shown in Figure 6-1, most of the decline in the per treatment use of dialysis drugs—which was estimated by multiplying drug units per treatment reported on CMS claims by each drug’s 2018 average sales price (to hold price constant)—occurred in the early years of the PPS (implemented in 2011). For example, between 2010 and 2012, use per treatment across all therapeutic classes

declined by 23 percent per year. Most of this decline was due to declining ESA use, which also fell by 23 percent per year during the same period. For ESAs, some of this decline may also have stemmed from clinical evidence showing that higher doses of these drugs led to increased risk of morbidity and mortality, which resulted in the Food and Drug Administration (FDA) changing the ESA label in 2011.

Between 2016 and 2017, holding price constant, the use of all dialysis drugs declined by nearly 4 percent. During this period, drug use declined for each of the four therapeutic classes (ESAs, vitamin D agents, iron agents, and all other drugs) (Figure 6-1). As shown in Table 6-3, per treatment drug use increased for only three products—ESAs epoetin beta and darbepoetin alfa and vitamin D agent calcitriol. However, under the PPS (between 2010 and 2017), per treatment use of calcitriol declined.

**TABLE
6-3**

Use of dialysis drugs per treatment has declined under the outpatient dialysis PPS

Dialysis drug	Mean units per treatment*			Aggregate percent change	
	2010	2016	2017	2010-2016	2016-2017
ESAs					
Epoetin alfa	5,214	1,383	1,269	-76%	-8%
Darbepoetin alfa	1.26	2.14	2.17	72	1
Epoetin beta**	N/A	3.02	3.16	N/A	5
Iron agents					
Sodium ferric gluconate	0.15	0.13	0.11	-26	-14
Iron sucrose	16.0	13.0	12.4	-22	-4
Ferumoxytol	0.8	0.0092	0.0073	-99	-20
Ferric carboxymaltose	N/A	0.00031	0.00008	N/A	-74
Vitamin D agents					
Paricalcitol	2.3	0.3	0.3	-87	-5
Doxercalciferol	0.9	1.5	1.3	54	-10
Calcitriol	0.13	0.03	0.05	-64	63
Antibiotics					
Daptomycin	0.22	0.11	0.09	-58	-20
Vancomycin	0.02	0.02	0.01	-42	-14
Other drugs					
Levocarnitine	0.010	0.001	0.001	-88	-18
Alteplase	0.020	0.002	0.002	-89	-9

Note: PPS (prospective payment system), ESA (erythropoiesis-stimulating agent), N/A (not applicable). Individual units per treatment are rounded; the aggregate percentage change is calculated using unrounded units per treatment.

*Each drug is reported using its own drug units.

**Epoetin beta was introduced to the U.S. market in 2015.

Source: MedPAC analysis of claims submitted by dialysis facilities to CMS.

Prior Commission analysis showed that the outpatient dialysis PPS increased price competition within the ESA and vitamin D therapeutic classes. For example, our analysis of ESA utilization since 2013 shows that dialysis facilities and nephrologists switched beneficiaries from epoetin alfa to darbepoetin alfa or epoetin beta. In at least one situation, switching was an explicit goal: One of the LDOs announced its intent to have more than 70 percent of the company's ESA patients (110,000 patients) switched to epoetin beta (from epoetin alfa) by the end of the first quarter of 2016 (Reuters 2016). According to several sources, the LDO reduced its total ESA costs by switching beneficiaries to epoetin beta (Reuters 2016, Seeking Alpha 2016). A mid-sized chain recently announced that between 85 percent and 90 percent of its facilities will have switched to epoetin beta by the end of

2018 (Seeking Alpha 2018). With the FDA approval of a biosimilar for epoetin alfa in 2018, competition among ESA products could increase (and ESA costs for facilities could drop further) in the future (Pfizer 2018).

Dialysis marginal profitability suggests incentive to serve Medicare beneficiaries

Another measure of access is whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of

Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries.¹³

For dialysis facilities, in 2017 Medicare payments exceed marginal costs by 17 percent, a positive indicator of patient access because it means facilities with available capacity have an incentive to treat Medicare beneficiaries.

Quality of care

Our analysis focuses on changes in quality indicators—including mortality and morbidity, process measures that assess dialysis adequacy and anemia management, and treatment utilization (home dialysis and kidney transplantation rates). The analysis, except where indicated, is based on the Commission’s analysis of Medicare FFS enrollment and claims data and CMS’s monthly monitoring data between 2012 and 2017 and of U.S. Renal Data System (USRDS) data between 2011 and 2016.

For the most recent five-year period that data are available, rates of mortality and of hospitalization and readmission declined, while emergency department (ED) use rose. Use of home dialysis, which is associated with improved patient satisfaction and quality of life, increased. However, home dialysis growth slowed between 2014 and 2017, partly because of a shortage of the solutions needed for the predominant home method, peritoneal dialysis (PD). The negative cardiovascular outcomes associated with high ESA use have generally declined or remained constant, and blood transfusion use, which initially increased under the PPS, has declined since 2013.

In assessing quality, we also examine the multiple factors that affect access to kidney transplantation. This procedure is widely regarded as a better ESRD treatment option than dialysis in terms of patients’ clinical and quality of life outcomes and Medicare spending, and demand far outstrips supply. We also discuss CMS’s payment model—the Comprehensive ESRD Care Model—that aims to improve the health outcomes of dialysis beneficiaries while lowering the total Medicare Part A and Part B per capita spending on these beneficiaries. Last, we discuss CMS’s two renal quality measurement systems, the ESRD Quality Incentive Program (QIP) and the dialysis star rating system.

Quality under the PPS

Between 2012 and 2017, through the Commission’s analysis of claims data, mean all-cause hospital stays per

beneficiary declined from 1.7 admissions per beneficiary to 1.5 admissions per beneficiary, respectively. This finding is consistent with the trend of declining inpatient admissions for all Medicare FFS beneficiaries during this period. USRDS data show that hospital admission rates fell for ESRD-related complications and comorbidities (cardiovascular, infection, and vascular access events) during the most recent five-year period for which data are available (2011 to 2016) (United States Renal Data System 2018).¹⁴ Between 2012 and 2017, 30-day readmission rates declined slightly (from 22 percent of admissions to 21 percent of admissions), while the proportion of dialysis beneficiaries who used the ED increased from an average of 11 percent per month to about 12 percent per month. Between 2011 and 2016, adjusted annual rates of mortality per 100 dialysis beneficiaries declined from 18 to 16 (United States Renal Data System 2018).

Beneficiaries’ fluid management is related to factors such as the adequacy of the dialysis procedure and dietary management. According to the Commission’s analysis, between 2012 and 2017, from 97 percent to 98 percent of hemodialysis beneficiaries and 91 percent to 93 percent of PD beneficiaries received adequate dialysis, defined as having enough waste removed from their blood. Between 2012 and 2017, the share of dialysis beneficiaries diagnosed with dehydration declined slightly, while the share of beneficiaries diagnosed with fluid overload increased slightly (Centers for Medicare & Medicaid Services 2018a).

Process and health outcome measures reflect the change in anemia management under the PPS. Anemia is measured by a blood test to check the level of hemoglobin, the protein that carries oxygen in red blood cells. Median hemoglobin levels fell during the initial years of the dialysis PPS; since 2014, levels have remained steady at 10.5 g/dL. Figure 6-2 shows that the proportion of dialysis beneficiaries with higher hemoglobin levels declined, and the proportion with lower hemoglobin levels increased (which is generally associated with lower ESA use). During the initial years of the dialysis PPS, blood transfusion rates increased (from 2.7 percent per month in 2010 to 3.4 percent per month in 2012). However, since 2013, the proportion of beneficiaries receiving a blood transfusion declined (from 3.3 percent per month to 2.3 per month) (Centers for Medicare & Medicaid Services 2018a).¹⁵

Stroke, acute myocardial infarction, and heart failure are cardiovascular outcomes associated with anemia management. Under the dialysis PPS, the cumulative

share of beneficiaries experiencing stroke declined, while the share experiencing acute myocardial infarction has remained relatively constant. Until 2015, the share of beneficiaries with heart failure decreased. However, there has been an increasing trend between 2015 and 2017 (Centers for Medicare & Medicaid Services 2018a).¹⁶

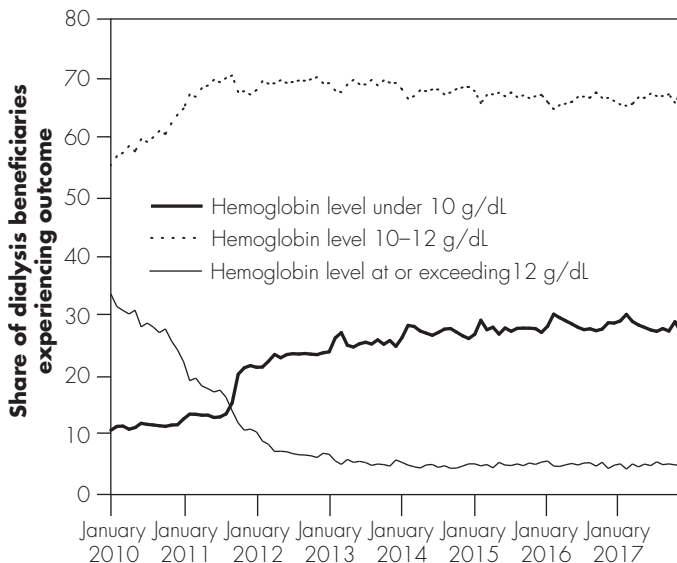
As discussed in our June 2014 report, clinical process measures can exacerbate the incentives in FFS to overprovide and overuse services (Medicare Payment Advisory Commission 2014b). For example, before 2011, targeting higher hemoglobin levels was associated with higher ESA use among dialysis beneficiaries. In addition, some clinical process measures may be only weakly correlated with better health outcomes. A given hemoglobin level may reflect adequate anemia management for one patient, whereas the same level may lead to a different response in a different patient. Focusing on clinical outcomes, such as rates of stroke, is a better indicator of anemia management in the dialysis population. The Commission recently stated that quality measurement should be patient oriented, encourage coordination, and promote delivery system change and that Medicare quality incentive programs should use a small set of population-based measures (e.g., outcomes, patient experience, value) to assess quality of care across settings and populations (Medicare Payment Advisory Commission 2018b).

According to separate analyses by CMS and the Commission, between 2012 and 2017 the share of beneficiaries dialyzing at home steadily increased from a monthly average of 9.5 percent to 11.0 percent (Centers for Medicare & Medicaid Services 2018a). While we are encouraged by this modest increase, differences by race persist: African Americans are less likely to use home methods. According to the Commission's analysis, African Americans account for 26 percent of home dialysis beneficiaries compared with about 36 percent of all dialysis beneficiaries.

Researchers have identified many factors that affect the use of home dialysis, including factors both clinical (patients' other health problems and prior nephrology care) and nonclinical (e.g., patients' social circumstances, physician's training and preference, dialysis facility's staff experience). The dialysis PPS is associated with an overall increase in the use of home dialysis (Lin et al. 2017). The Commission's recent discussions of these factors can be found in our March 2018 report to the Congress (located

FIGURE 6-2

Changes in hemoglobin levels under the dialysis PPS



Note: PPS (prospective payment system), g/dL (grams per deciliter). Data are compiled on a monthly basis by CMS.

Source: MedPAC analysis of Medicare claims submitted by dialysis facilities.

at http://medpac.gov/docs/default-source/reports/mar18_medpac_ch6_sec.pdf?sfvrsn=0).

Since 2014, one nonclinical factor—the availability of solutions needed to perform peritoneal dialysis—may have affected the growth in home dialysis. Beginning around September 2014, the growth in PD, the predominant home method, slowed because of a shortage of solutions needed to perform this type of dialysis. Between 2014 and 2017, the total number of home dialysis patients increased by 3 percent per year; by contrast, between 2012 and 2014, the total number of home patients increased by 7 percent per year. The supply shortage resulted from the product's leading manufacturer (Baxter) experiencing increased PD demand and limited manufacturing capacity (Baxter 2014, Neumann 2014). Because of the shortage, beginning in August 2014, the manufacturer gave each dialysis provider an allocation for how many new patients could be started on PD based on the provider's history of growth during the first six months of 2014 (Seaborg 2015). Although steps have been taken to increase the supply of PD solutions, a shortage of solutions continues to exist for one of the two

**TABLE
6-4**

**Between 2012 and 2017,
the number of kidney transplants
increased, and African Americans,
Hispanics, and Asian Americans
accounted for an increasing share**

	2012	2017
Total transplants	16,487	19,849
Share of live donors	34%	29%
Share of:		
Whites	52	47
African Americans	25	27
Hispanics	16	18
Asians	6	7
Others	2	2

Note: Totals may not sum to 100 percent due to rounding.

Source: Organ Procurement and Transplantation Network 2018.

PD types (automated peritoneal dialysis) in 2018 (Food and Drug Administration 2018).

Access to kidney transplantation

Kidney transplantation is widely regarded as a better ESRD treatment option than dialysis in terms of patients' clinical and quality of life outcomes. In addition, transplantation results in lower Medicare spending; in 2016, average Medicare spending for patients who had a functioning kidney transplant was less than half the spending for dialysis patients (\$25,942 vs. \$89,367) (United States Renal Data System 2018). However, demand for kidney transplantation exceeds supply. Factors that affect access to kidney transplantation besides donation rates include the clinical allocation process; patients' health literacy, clinical characteristics, and preferences; the availability of education for patients; clinician referral for transplant evaluation at a transplant center; and transplant center policies.

Between 2012 and 2017, according to the Organ Procurement and Transplantation Network, the number of kidney transplants increased by 4 percent per year to 19,849 (Table 6-4) (Organ Procurement and Transplantation Network 2018). In 2017, African

Americans were less likely than White patients to receive kidney transplants despite their fourfold greater likelihood of developing ESRD; however, between 2012 and 2017, the number of African Americans receiving a transplant grew by 5 percent per year (to 5,276 individuals, data not shown). According to Ephraim and colleagues, compared with other groups, the lower rates of kidney transplantation for African Americans have been associated with multiple factors, including immunological incompatibility with deceased donor kidneys, lower rates of referral for transplantation, lower rates of cadaver kidney donation, and lack of knowledge and suboptimal discussions about kidney transplantation among recipients, their families, and health care providers (Ephraim et al. 2012).

A new kidney allocation system implemented in 2014 by the United Network for Organ Sharing led to a narrowing of the disparities in national kidney transplant rates among Whites, African Americans, and Hispanics on the transplant waiting list, according to a new analysis (Melanson et al. 2017). Under the new system, the starting point for calculating waiting time was changed from the date the patient was put on the waiting list to the earlier of either that date or the date the patient started regular dialysis treatments. The new system led to a substantial increase in the kidney transplant rate for African Americans and Hispanics in the months following implementation and a decrease in the rate of kidney transplantation for Whites. Before the new system, the average monthly transplantation rate was significantly higher among Whites (1.07 percent) compared with African Americans or Hispanics (0.80 percent and 0.79 percent, respectively). After implementation of the system, the monthly rates changed significantly for all groups: 0.95 percent for Whites, 0.96 percent for African Americans, and 0.91 percent for Hispanics (Melanson et al. 2017).

Education efforts directed at patients can be effective in encouraging them to make an informed decision about their treatment, including home dialysis, in-center dialysis, kidney transplantation, and conservative care. For example, a recent review of educational interventions found a strong association between patient-targeted dialysis modality education and choosing and receiving PD (Devoe et al. 2016). An augmented nurse care management program that targeted persons with late-stage chronic kidney disease resulted in a statistically significant reduction in the number of hospitalizations during the intervention period and, for those who

required renal replacement therapy, higher use of PD or a preemptive kidney transplant (Fishbane et al. 2017).

In 2010, to help inform beneficiaries diagnosed with Stage IV CKD (chronic kidney disease), the disease stage before ESRD, about their treatment options and managing the disease and related comorbidities, MIPPA established Medicare payment for up to six sessions of kidney disease education (KDE) per beneficiary. Since its implementation, relatively few beneficiaries have been provided KDE services. About 3,500 beneficiaries were provided such services in each year between 2015 and 2017, compared with about 4,200 beneficiaries in 2012. In 2017, Medicare KDE spending was under \$500,000.¹⁷

According to the Government Accountability Office, payment limitations on the providers who can furnish KDE services and the beneficiaries who are eligible might constrain the service's use (Government Accountability Office 2015). MIPPA specified the categories of providers who can furnish KDE services—physicians, physician assistants, nurse practitioners, clinical nurse specialists, and certain providers of services in rural areas.¹⁸ MIPPA also specified that beneficiaries with Stage IV CKD are eligible for the benefit. Some stakeholders contend that other categories of beneficiaries, including those with Stage V CKD (i.e., ESRD) who have not started dialysis as well as individuals who have already initiated hemodialysis, might also benefit from Medicare KDE coverage.

The Comprehensive ESRD Care Model

The relatively high resource use by dialysis beneficiaries, particularly rates of hospital admissions and hospital readmissions, suggests that further improvements in quality are needed and that some dialysis beneficiaries might benefit from better care coordination. Under the authority of the Center for Medicare & Medicaid Innovation, the first round of the Comprehensive ESRD Care (CEC) Model began October 1, 2015, and will continue through December 31, 2020. The CEC Model is testing whether a new payment model implemented in FFS Medicare can improve the outcomes of dialysis beneficiaries as well as lower their Medicare per capita spending. A second round of the CEC Model began on January 1, 2017.

Under this five-year initiative, ESRD Seamless Care Organizations (ESCOs)—which, like accountable care organizations (ACOs), are specific to the dialysis population—consist of at least one dialysis facility and one nephrologist, and they are held accountable for the

clinical and financial (Part A and Part B) outcomes of prospectively matched dialysis beneficiaries. Of the 13 ESCOs participating in the first round, 12 are operated by Dialysis Clinic Inc., DaVita, and Fresenius Medical Care, all of which CMS designated as large because each organization operates more than 200 dialysis facilities; 1 ESCO is operated by Rogosin Institute, which CMS designated as small because the company operates fewer than 200 dialysis facilities. For the second performance round, 24 additional ESCOs joined the model. Of the 37 participating ESCOs in the second round, 33 are operated by large organizations, while 4 are operated by small organizations—Rogosin, Centers for Dialysis Care, Atlantic Dialysis, and Northwest Kidney Centers. Enrollment in the CEC Model increased from approximately 16,000 beneficiaries in the first performance year (October 2015 to December 2016) to roughly 55,000 beneficiaries in the second performance year (Centers for Medicare & Medicaid Services 2016, Kalantar-Zadeh 2018).

In the CEC Model's first round, Dialysis Clinic Inc., DaVita, and Fresenius—the ESCOs that CMS considers large—were held to two-sided risk-based payment, while Rogosin Institute, a small dialysis organization, was held to one-sided risk-based payment. (Under two-sided risk, the provider is at financial risk if specified goals are not achieved but is rewarded if the goals are met. Under one-sided risk, the provider is not penalized financially if goals are not met, but it does share in the gains.) In the CEC Model's second round, small dialysis organizations have the option of one-sided or two-sided risk.

In payment year 1 (PY1) of the CEC Model, all 13 ESCOs produced savings relative to their benchmarks, with 12 ESCOs producing enough savings to earn shared savings payments (Centers for Medicare & Medicaid Services 2017). The earned shared savings payments ranged from \$1 million to \$12 million and totaled \$51 million. Quality measurement in PY1 was essentially pay for reporting; thus, all the ESCOs received a 100 percent score for quality. In total, the demonstration saved 1.7 percent relative to a spending benchmark. It is not clear whether this trend will continue since the results for 2017 and 2018 are not yet available.

According to CMS's contractor, in the ESCOs' first year, there was a statistically significant decline of \$153 in total Part A and Part B spending per beneficiary per month (PBPM) ($p < 0.10$) (Marrufo et al. 2017). The contractor attributed this reduction to a statistically

significant decline in spending for acute inpatient services ($-\$102$ PBPM, $p < 0.01$) and post-acute care services ($-\$59$ PBPM, $p < 0.05$).

The Commission has said that, if structured properly, a shared savings program—in this case, for ESRD providers—could present an opportunity to correct some of the undesirable incentives inherent in FFS payment and reward providers who are doing their part to control costs and improve quality.

In addition to the CEC Model, dialysis beneficiaries in selected geographic areas also have access to ESRD special needs plans (SNPs). Between October 2017 and October 2018, enrollment increased and the number of ESRD SNPs remained steady. As of October 2018, about 5,600 dialysis beneficiaries were enrolled in 15 ESRD SNPs operated by 6 managed care organizations in 9 states (Arizona, California, Colorado, Illinois, Nevada, New Jersey, New York, North Carolina, and Texas). By comparison, as of October 2017, about 4,600 dialysis beneficiaries were enrolled in 15 ESRD SNPs operated by 6 managed care organizations in the same states with ESRD SNPs in 2018. While the CEC Model and ESRD SNPs enroll only dialysis beneficiaries, other ACO models, such as those participating in the Medicare Shared Savings Program, might provide opportunities for beneficiaries with earlier stages of kidney disease to receive better care coordination, particularly in the management of kidney disease risk factors.

The ESRD QIP and the dialysis star rating system

CMS measures quality for each dialysis facility using two measurement systems, the ESRD QIP, which was mandated by MIPPA and implemented in 2012, and the dialysis star rating system, which CMS established through a subregulatory process in 2015. CMS assigns from 1 to 5 stars; more stars mean that a dialysis facility performs better on quality measures compared with the national average. In its comment letter to CMS, the Commission questioned why CMS finds a second quality system necessary for dialysis facilities (Medicare Payment Advisory Commission 2014a). We also raised concerns that beneficiaries and their families might be confused if a facility's star rating and QIP score diverge, which could occur because the measurement systems use different methods and measures to calculate a facility's performance score. For example, a Commission analysis found that in 2017, 30 percent of facilities assigned only 1 star did not have a QIP payment reduction in that payment year.

Conversely, nearly 10 percent of facilities assigned 4 or 5 stars had some QIP payment reduction. The correlation coefficient between a facility's star rating and QIP score was 0.36, which means there is a positive but somewhat weak correlation between the two quality programs.

Providers' access to capital: Growth trends indicate access is adequate

Providers need access to capital to improve their equipment and open new facilities so they can accommodate the growing number of patients requiring dialysis. The two LDOs as well as other renal companies appear to have adequate access to capital. For example, in 2017 and 2018:

- Fresenius Medical Care took a \$150 million stake in the tissue engineering firm Humacyte Inc. and will become the exclusive distributor of the company's bioengineered blood vessels once the FDA approves the product. These blood vessels are currently being tested in the last of three phases that are typically required for market approval in the United States and Europe.
- Vifor Fresenius Medical Care Renal Pharma—a joint venture between Fresenius Medical Care and Vifor Pharma Group—acquired the international license to Cara Therapeutics' investigational opioid analgesic that treats pruritus (severe itching) associated with renal disease in hemodialysis patients. Vifor Fresenius Medical Care Renal Pharma paid Cara Therapeutics \$50 million in advance and will invest an additional \$20 million in Cara common stock to market the drug in countries outside the United States, Japan, and South Korea. Cara will solely promote the product in facilities not operated by Fresenius Medical Care in the United States. Vifor Fresenius Medical Care Renal Pharma Ltd. and Cara will promote the investigational medicine to Fresenius Medical Care dialysis clinics under a profit-sharing arrangement.
- DaVita completed its acquisition of Renal Ventures, gaining 31 dialysis facilities and divesting 7 facilities (as required by the Federal Trade Commission), and acquired Purity Dialysis, which operates 10 facilities in Wisconsin. In 2017, DaVita sold its subsidiary, DaVita Medical Group, to Optum for \$4.9 billion.
- Baxter, a manufacturer of renal products including peritoneal dialysis machines, and the Mayo Clinic announced the development of a new renal care center

of excellence that will be located at the Mayo Clinic's dialysis center in Jacksonville, FL.

- Dialyze Direct LLC, a provider of staff-assisted home hemodialysis services in skilled nursing facilities (SNFs), signed a definitive agreement to acquire Affiliated Dialysis Centers LLC (a dialysis provider in the Midwest that furnishes outpatient clinic dialysis, home dialysis, and SNF dialysis services through its associated entities, and currently serves more than 400 patients).
- Cricket Health, a provider of integrated kidney care, announced funding of \$24 million that will be used partially to create new home and in-center dialysis programs.
- CVS Health announced an initiative that will focus on the development of home dialysis technology. In 2018, the company plans to initiate a pivotal clinical trial to demonstrate the safety and efficacy of a new home hemodialysis device in support of a planned FDA submission to obtain market clearance.
- Outset Medical said it raised \$132 million in equity financing, with funds slated to accelerate the commercial expansion of its Tablo hemodialysis system.

In public financial filings, the two LDOs (Fresenius Medical Care and DaVita) reported positive financial performance related to their dialysis business for 2018, including strong organic volume and revenue growth—that is, growth achieved apart from mergers and acquisitions. In addition, since 2010, the two LDOs have grown through large acquisitions and mergers of other dialysis facilities and other health care organizations. For example, during this period, both of the largest dialysis organizations acquired midsize for-profit organizations: DaVita acquired Purity and Renal Ventures, and Fresenius Medical Care acquired Liberty Dialysis.

Another positive indicator of the dialysis sector's strong access to capital is its all-payer margin. Using cost report data submitted to CMS by freestanding dialysis facilities, we estimate that the 2017 all-payer margin was roughly 20 percent.¹⁹ In their financial documents, dialysis providers reported that FFS Medicare payment rates are significantly lower than commercial rates (DaVita 2018).

In general, current growth trends among dialysis providers indicate that the dialysis industry is attractive to for-profit facilities.

Medicare payments and providers' costs

Each year, we examine the relationship between Medicare's payments and providers' costs as part of our assessment of payment adequacy. To make this assessment, we reviewed Medicare expenditures for outpatient dialysis services in 2017 and examined trends in spending under the PPS. We also reviewed evidence regarding providers' costs under the PPS.

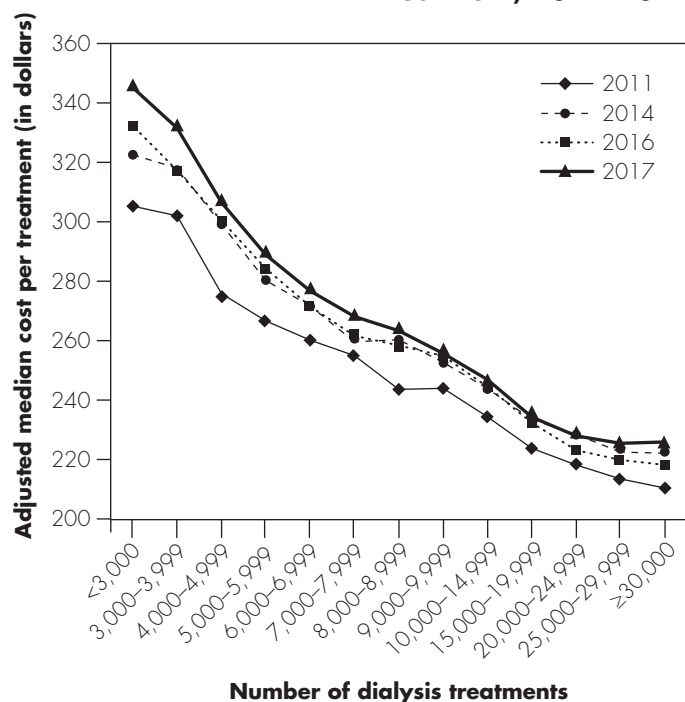
Medicare payments for outpatient dialysis services

In 2017, Medicare spending for outpatient dialysis services was \$11.4 billion, an increase of 0.4 percent compared with 2016. Per capita spending held steady at roughly \$29,000 in 2016 and 2017. The trend in total and per capita spending reflects two factors: (1) a statutory update (of 0.55 percent) to the base dialysis payment rate in 2017 and (2) the number of dialysis treatments per beneficiary, which held steady in 2016 and 2017.

Beginning in 2017, dialysis facilities are able to furnish dialysis to beneficiaries with acute kidney injury (AKI), as mandated by the Trade Preferences Extension Act of 2015. In 2017, Medicare spending for outpatient dialysis services for beneficiaries with AKI was nearly \$40 million. Medicare pays facilities the dialysis PPS base rate adjusted by the PPS wage index for the treatment of beneficiaries with AKI.²⁰ Medicare spending for treatment of AKI by dialysis facilities is not included in the Commission's analysis of Medicare's payments and costs for dialysis facilities.

Part D spending for dialysis drugs

Under the dialysis PPS, the use of dialysis drugs included in the PPS payment bundle declined. By contrast, during this period, the use (as measured by Medicare spending) of Part D dialysis drugs that are not yet included in the PPS payment bundle increased. In 2016 (the most recent year for which data are available), Part D spending for two categories of dialysis drugs (calcimimetics and phosphate binders) totaled \$2.3 billion, an increase of 22 percent per year compared since 2011. During this period, on a per treatment basis, Part D spending for all dialysis drugs increased by 20 percent per year.²¹ In addition, between 2011 and 2016, total Part D spending for dialysis drugs grew more rapidly than spending for all other Part D drugs prescribed to dialysis beneficiaries (22 percent per year vs. 11 percent per year). In 2016, spending for Part D dialysis drugs constituted about 60 percent of dialysis beneficiaries' gross Part D spending. Medicare

**FIGURE
6-3****Higher volume dialysis
facilities have lower cost per
treatment, 2011-2017**

Note: Cost per treatment is adjusted to remove differences in the cost of labor. Dialysis treatments include those paid for by all sources (not just Medicare-paid treatments).

Source: MedPAC analysis of cost reports submitted by freestanding dialysis facilities to CMS and the end-stage renal disease wage index files.

spending for Part D dialysis drugs is not included in the Commission's analysis of Medicare's payments and costs for dialysis facilities.

In 2011, the Secretary included Part D oral-only dialysis drugs and biologics (calcimimetics and phosphate binders) in the expanded payment bundle but delayed paying for them under the dialysis PPS until January 1, 2014 (to permit sufficient time to address data and pricing issues). The Stephen Beck Jr. Achieving a Better Life Experience Act of 2014 delayed bundling these drugs until 2025. However, if an injectable equivalent (or form of administration other than an oral form) of a dialysis oral-only drug is approved by the FDA before 2025, CMS will include both the oral and non-oral dialysis drugs in the PPS payment bundle (Centers for Medicare & Medicaid Services 2015).

In February 2017, the FDA approved the first calcimimetic injectable product (etelcalcetide) that is a counterpart to oral cinacalcet (paid for under Part D in 2017). Consequently, beginning January 2018, CMS pays for both the oral and intravenous calcimimetics under the dialysis PPS using a TDAPA until sufficient claims data (at least two years' worth) for rate-setting analysis are available. (Additionally, Part D plans will no longer pay for oral cinacalcet for dialysis beneficiaries after 2018). According to CMS, these products qualify for a TDAPA because the base dialysis payment rate has not yet accounted for their costs. For these products, CMS is paying providers 106 percent of the drug's average sales price.

Including dialysis drugs covered under Part D in the dialysis PPS bundle may lead to better management of drug therapy and improve beneficiaries' access to these medications since some beneficiaries lack Part D coverage or have coverage less generous than the Part D standard benefit. The efficiency of dialysis care may improve after calcimimetics are included in the dialysis PPS payment bundle. For example, based on the results of a multicenter, prospective, randomized, placebo-controlled trial, some clinicians concluded that the routine use of cinacalcet may not be warranted (Palmer et al. 2013).²² Between 2015 and 2016, Part D spending for cinacalcet increased 27 percent to roughly \$875 million. Giving the Secretary the flexibility to rebase the payment bundle after oral-only dialysis drugs are included in the dialysis PPS payment bundle might lead to savings for beneficiaries and taxpayers.

**Providers' costs for outpatient dialysis services
under the outpatient dialysis PPS**

To assess the appropriateness of costs for dialysis services paid for under the dialysis PPS, we examine whether aggregate dialysis facility costs reflect costs that efficient providers would incur in furnishing high-quality care. For this analysis, we use 2016 and 2017 cost reports submitted to CMS by freestanding dialysis facilities. For those years, we look at the growth in the cost per treatment and how total treatment volume affects that cost.

Cost growth under the PPS Between 2016 and 2017, the cost per treatment increased by 2 percent, from about \$243 per treatment to nearly \$248 per treatment. During this period, the cost per treatment for ESAs and other dialysis-related drugs declined by 10 percent and 4 percent, respectively. These cost categories accounted for 9 percent

and about 2 percent, respectively, of the total cost of treatment in 2017. The decline in cost per treatment for ESAs and other injectable drugs somewhat offset increases in the other cost categories:

- Administrative and general expenses and capital costs, which accounted for 26 percent and 17 percent of the cost per treatment, respectively, increased by 5 percent and 6 percent, respectively.
- Labor costs, which accounted for about 33 percent of the cost per treatment, increased by 3 percent.
- Supply and lab costs, which accounted for 11 percent and 2 percent of the cost per treatment, respectively, increased by less than 1 percent and 2 percent, respectively.

Variation in cost growth across freestanding dialysis facilities shows that some facilities were able to hold their cost growth well below that of others. For example, between 2016 and 2017, per treatment costs decreased by 3 percent for facilities in the 25th percentile of cost growth and increased by 5 percent for facilities in the 75th percentile.

It is unknown to what extent some of the variation in costs among facilities results from differences in the accuracy of facilities' reported data. In 2016 and 2017, we found substantial variation in the level of selected cost categories reported by the five largest dialysis organizations. For example, the cost per treatment for administrative and general services and for capital services each differed by roughly \$30 per treatment among these organizations. We anticipate that CMS's audit of a representative sample of facilities' ESRD cost reports will examine their accuracy. Consistent with our 2014 recommendation, the Protecting Access to Medicare Act of 2014 (PAMA) funded CMS to audit a representative sample of ESRD facility cost reports beginning in 2012.

Cost per treatment is correlated with facility service volume Cost per treatment is correlated with the total number of treatments a facility provides. For this analysis, we adjusted the cost per treatment to remove differences in the cost of labor across areas and included all treatments regardless of payer. Our analysis showed, in each year from 2011 through 2017, a statistically significant relationship between total treatments and cost per treatment (correlation coefficient equaled -0.5) (Figure 6-3). That is, the greater the facility's service volume, the lower its costs per treatment. Facilities that qualified

for increased Medicare payment due to low volume had substantially higher costs per treatment for capital and administrative and general services compared with all other facilities.

Medicare margins for freestanding facilities in 2017

The Commission assesses current payments and costs for dialysis services for freestanding dialysis facilities by comparing Medicare's payments with facilities' Medicare-allowable costs. The latest and most complete data available on payments and costs are from 2017. We estimate that the aggregate Medicare margin in 2017 was -1.1 percent (Table 6-5, p. 174). Margins decidedly varied by treatment volume; facilities in the lowest volume quintile had margins at or below -21.3 percent, and facilities in the top volume quintile had margins of 5.4 percent or more.

Urban facilities had higher margins than rural facilities (-0.4 percent vs. -5.5 percent). Much of the difference in margins between urban and rural facilities is accounted for by differences in total treatment volume. Urban dialysis facilities are larger on average than rural facilities in the number of treatment stations and total treatments provided. In 2017, urban facilities averaged about 12,000 treatments, while rural facilities averaged about 7,800 treatments (data not shown).

The Commission is concerned about the gap in the Medicare margin between urban and rural facilities. Although some rural facilities have benefited from the dialysis PPS's 23.9 percent low-volume adjustment and 0.8 percent rural adjustment, the Commission has stated that neither adjustment targets low-volume, geographically isolated facilities that are critical to beneficiary access (Medicare Payment Advisory Commission 2016a, Medicare Payment Advisory Commission 2015, Medicare Payment Advisory Commission 2014a). In addition, the design of the low-volume adjustment provides facilities with an adverse incentive to restrict their service provision to avoid reaching 4,000 treatments, the threshold that CMS defines as a low-volume facility (Government Accountability Office 2013). The text box (p. 175) provides more information about the low-volume and rural payment adjustments used in the dialysis PPS. The Commission intends to continue to monitor the adequacy of Medicare's payments for rural and urban facilities in the upcoming years. In addition, we intend to consider alternative approaches that would better target low-volume, geographically isolated facilities.

**TABLE
6-5****Medicare margins in 2017 varied by type of freestanding dialysis facility**

Provider type	Medicare margin	Percent of freestanding dialysis facilities	Percent of freestanding dialysis facility treatments
All	-1.1%	100%	100%
Urban	-0.4	82	88
Rural	-5.5	18	12
Treatment volume (quintile)			
Lowest	-21.3	20	7
Second	-10.6	20	12
Third	-3.4	20	17
Fourth	0.8	20	24
Highest	5.4	20	39

Note: Totals may not sum to 100 percent due to rounding.

Source: Compiled by MedPAC from cost reports and outpatient claims submitted by facilities to CMS and the Dialysis Compare database.

Projecting the Medicare margin for 2019

The aggregate Medicare margin for 2019 is projected to be -0.4 percent, slightly greater than the 2017 Medicare margin (-1.1 percent). This projection considers providers' historical cost growth and the following policy changes that went into effect between 2017 (the year of our most recent margin estimates) and 2019:

- PAMA set the update to the dialysis base payment rate in 2018 to account for the reduced drug utilization under the dialysis PPS. This rebasing adjustment reduced the statutory update (based on the ESRD market basket offset by a productivity adjustment) by 1.0 percent in 2018. The net payment update was 0.3 percent in 2018.
- In 2019, the statutory dialysis base payment rate (based on the ESRD market basket offset by a productivity adjustment) increased by 1.3 percent.
- For 2018 and 2019, CMS estimates that payments will be reduced by 0.14 percent and 0.15 percent, respectively, due to the ESRD QIP.
- Other regulatory changes implemented by CMS are expected to result in payments increased by about 0.2 percent in 2018 and 0.3 percent in 2019.

How should Medicare payments change in 2020?

PAMA sets the update to the outpatient dialysis payment base rate equal to the ESRD market basket index, less an adjustment for productivity (currently estimated at 0.5 percent). Based on CMS's latest forecast of changes in the ESRD market basket costs for calendar year 2020 (2.4 percent), the update to the 2020 payment rate would be 1.9 percent. In addition to this statutory provision, the ESRD QIP is expected to decrease total payments by 0.35 percent in 2020. And beginning in 2020, Medicare will pay dialysis facilities separately for all new drugs and biologics based on the product's average sales price for at least a two-year period. This policy will likely increase Medicare payments to facilities because CMS will not offset the dialysis PPS base rate (even for new drugs that fall into 1 of the 11 functional categories that are already included in the payment bundle).

Recommendation

The evidence on payment adequacy suggests that outpatient dialysis payments are adequate. It appears that facilities have become more efficient under the PPS, as measured by declining use of most injectable dialysis drugs.

The low-volume and rural payment adjustments should focus on protecting only facilities critical to beneficiary access

The 23.9 percent low-volume and 0.8 percent rural payment adjustments under the dialysis prospective payment system (PPS) are not targeting facilities that are critical to beneficiary access. CMS defines a low-volume facility as one that provides fewer than 4,000 treatments (Medicare and non-Medicare) in each of the three years before the payment year and has not opened, closed, or received a new provider number because of a change in ownership during the three-year period. For payment year 2016, CMS revised the distance requirement used to determine eligibility for this payment adjustment by (1) including, for the purposes of determining a facility's eligibility, treatments furnished by the facility in question and other facilities under common ownership that are within five road miles of the facility in question; and (2) applying the five-mile distance criterion to all facilities, regardless of when the facility was certified. Before payment year 2016, the dialysis PPS used a 25-mile distance criterion and applied that criterion to only facilities certified on or after January 1, 2011.

Since 2016, all rural facilities, irrespective of their treatment volume or proximity to other dialysis facilities, receive an adjustment of 0.8 percent. Before 2016, the dialysis PPS did not include such an adjustment. The Commission is concerned that neither the low-volume adjustment nor the rural adjustment are targeting facilities that are critical to beneficiary access. A prior Commission analysis that used facility and claims data from 2013 found that:

- About 47 percent of the facilities that receive the low-volume adjustment are within five miles of the next closest facility. The median distance between the facility that would receive the proposed adjustment and the next closest facility is six miles.
- About 28 percent of all rural facilities are within five miles of the next closest facility, and nearly 20 percent of facilities located in rural areas are high volume (Medicare Payment Advisory Commission 2015). ■

RECOMMENDATION 6

For calendar year (CY) 2020, the Congress should update the CY 2019 Medicare end-stage renal disease prospective payment system base rate by the amount determined in current law.

RATIONALE 6

Most of our indicators of payment adequacy are positive, including beneficiaries' access to care, the supply and capacity of providers, volume of services, quality of care, and access to capital. Providers have become more efficient in the use of dialysis drugs under the PPS. The Medicare margin was -1.1 percent in 2017 and is projected to be -0.4 percent in 2019. The 17 percent marginal profit is a positive indicator of beneficiary access.

IMPLICATIONS 6

Spending

- In 2020, the statute sets the payment update at the market basket, net of the productivity adjustment. The Commission's recommendation would have no effect on federal program spending relative to the statutory update.

Beneficiary and provider

- We do not anticipate any negative effects on beneficiary access to care. This recommendation is expected to have a minimal effect on providers' willingness and ability to care for Medicare beneficiaries. ■

Endnotes

- 1 In this chapter, the term *beneficiaries* refers to individuals covered by Medicare, and *patients* refers to all individuals who have ESRD.
- 2 Generally, individuals are fully insured under Social Security if they have 40 credits of covered employment (i.e., the individual is employed in a job that pays Social Security taxes). Individuals are currently insured under Social Security if they have a minimum of six credits of covered employment in the three years before ESRD diagnosis.
- 3 Incidence data are adjusted for age, sex, and primary ESRD diagnosis.
- 4 For individuals entitled to Medicare based on ESRD, Medicare coverage does not begin until the fourth month after the start of dialysis, unless the individual had a kidney transplant or began training for self-care, including dialyzing at home.
- 5 For example, the Center for Medicare & Medicaid Innovation awarded a three-year cooperative agreement in 2014 to Northwell Health to implement the Healthy Transitions program for adults with late-stage CKD (with an estimated glomerular filtration rate of less than 30 ml/min) that aimed to (1) better prepare patients for ESRD care by improving patient education and shared decision making; (2) increase the share of patients who select home dialysis or a preemptive kidney transplant; (3) increase the rate of arteriovenous fistulas; (4) increase patients' quality of life scores; and (5) generate savings to Medicare (e.g., by reducing hospitalizations and emergency department visits). CMS's contractor concluded that the health system was successful in implementing its program (e.g., effectively delivered the intervention by using nurse case managers) (Schneider and Lines 2018). Due to too few treatment beneficiaries, the contractor does not anticipate being able to conduct a rigorous impact analysis of this program (Schneider and Lines 2018). Other providers have developed similar interventions that emphasize early patient education and shared decision making (Dialysis Clinic Inc. 2019, Kaiser Permanente 2017).
- 6 Under the Bipartisan Budget Act of 2018, beginning January 2019, clinicians who manage home dialysis beneficiaries can furnish their visits through telehealth (rather than in person). Beneficiaries are required to receive at least a monthly face-to-face visit for the first three months of home dialysis and once every three months thereafter.
- 7 For pediatric dialysis beneficiaries (less than 18 years of age), the base rate is adjusted for age and type of dialysis.
- 8 Currently, drugs and biologics reported on dialysis facility claims are categorized into 1 of the following 11 functional categories: access management, anemia management, bone and mineral metabolism, cellular management, antiemetic, anti-infective, antipruritic, anxiolytic, excess fluid management, fluid and electrolyte management, and pain management.
- 9 Over a five-year period ending in 2016 (the most recent data available), the number of dialysis patients with any type of insurance coverage grew by 4 percent per year (United States Renal Data System 2018).
- 10 These figures are based on the Commission's analysis of Medicare and total treatments reported by freestanding facilities on cost reports submitted to CMS.
- 11 Analysis of treatment growth is based on Medicare-covered treatments in each year. An analysis of both Medicare-covered and noncovered treatments finds that total treatments declined by 1 percent and the nonannualized dialysis treatments per beneficiary declined from 118 to 116 between 2016 and 2017.
- 12 These drug classes accounted for nearly all dialysis drug spending (about 97 percent) in 2010, the year before the start of the new payment method.
- 13 If we approximate marginal cost as total Medicare costs minus fixed building and equipment costs, then marginal profit can be calculated as follows: $\text{Marginal profit} = (\text{payments for Medicare services} - (\text{total Medicare costs} - \text{fixed building and equipment costs})) / \text{Medicare payments}$. This comparison is a lower bound on the marginal profit because we do not consider any potential labor costs that are fixed.
- 14 Between 2011 and 2016, adjusted hospitalization rates (per patient year) for hemodialysis patients fell from 0.49 to 0.45 admissions for cardiovascular events, from 0.48 to 0.44 for infection events, and from 0.21 to 0.13 admissions for vascular access events. Adjusted admission rates for PD patients also declined for these ESRD-related complications and comorbidities during this period (United States Renal Data System 2018).
- 15 Blood transfusions are of concern to patients because they (1) carry a small risk of transmitting blood-borne infections to the patient, (2) may cause some patients to develop a reaction, and (3) are costly and inconvenient for patients. Blood transfusions are of particular concern for patients seeking kidney transplantation because they increase a patient's alloantigen sensitization, which can require a patient to wait to receive a transplant.

- 16 According to CMS, the increasing cumulative share of beneficiaries with heart failure beginning in 2015 could be associated with the issuance of local coverage determinations in that year by CMS's contractors that required certain conditions, including heart failure, to be reported on dialysis facility claims for Medicare to cover dialysis treatments exceeding thrice weekly (Centers for Medicare & Medicaid Services 2018b).
- 17 This analysis used 100 percent of 2012 through 2017 carrier and outpatient claims submitted for KDE services.
- 18 MIPPA does not permit other providers (such as registered nurses, social workers, and dieticians) or dialysis facilities to bill for KDE services.
- 19 In 2018, both LDOs and several midsized organizations contributed more than \$100 million to defeat a public referendum in California that would have capped payments at 15 percent above patient care costs for dialysis patients with commercial coverage.
- 20 In addition, for beneficiaries with AKI, Medicare pays dialysis facilities separately for drugs, biologics, and laboratory services that are not renal dialysis services.
- 21 Part D spending per dialysis treatment is calculated by dividing total Part D spending for dialysis drugs by the total number of Part B dialysis treatments furnished by dialysis facilities to Medicare beneficiaries with and without Part D.
- 22 The Evaluation of Cinacalcet Hydrochloride Therapy to Lower Cardiovascular Events trial—a multicenter, prospective, randomized, placebo-controlled trial—found that cinacalcet did not significantly reduce the risk of death or major cardiovascular events in patients with moderate to severe secondary hyperparathyroidism undergoing dialysis (Chertow et al. 2012).

References

- Baxter. 2014. Letter from Richard Marritt, Region Head and General Manager, US and Canada. July 28. [http://www.homebybaxter.com/Documents/USMP%20MG2%2014-0093i_Customer%20Letter%20\(Update\)_FINAL.pdf](http://www.homebybaxter.com/Documents/USMP%20MG2%2014-0093i_Customer%20Letter%20(Update)_FINAL.pdf).
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018a. ESRD prospective payment system (ESRD PPS) overview of 2011–2017 claims-based monitoring system. Q4 2017 Public Use File. <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/ESRDpayment/ESRD-Claims-Based-Monitoring.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018b. Medicare program; end-stage renal disease prospective payment system, payment for renal dialysis services furnished to individuals with acute kidney injury, End-Stage Renal Disease Quality Incentive Program, Durable Medical Equipment, Prosthetics, Orthotics and Supplies (DMEPOS) Competitive Bidding Program (CBP) and fee schedule amounts, and technical amendments to correct existing regulations related to the CBP for certain DMEPOS. Final rule. *Federal Register* 83, no. 220 (November 14): 56922–57073.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017. Medicare Comprehensive End Stage Renal Disease Care Model performance year 1 (Oct 2015–Dec 2016) results. <https://innovation.cms.gov/Files/x/cec-fncl-py1.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. Comprehensive ESRD (CEC) Model. <https://innovation.cms.gov/Files/slides/cec-appkickoff-slides.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015. Medicare program; end-stage renal disease prospective payment system, and Quality Incentive Program. Final rule. *Federal Register* 80, no. 215 (November 16): 68967–69077.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014. Medicare program; end-stage renal disease prospective payment system, Quality Incentive Program, and durable medical equipment, prosthetics, orthotics, and supplies. Final rule. *Federal Register* 79, no. 215 (November 6): 66120–66265.
- Chertow, G. M., G. A. Block, R. Correa-Rotter, et al. 2012. Effect of cinacalcet on cardiovascular disease in patients undergoing dialysis. *New England Journal of Medicine* 367, no. 26 (December 27): 2482–2494.
- DaVita. 2018. Annual report pursuant to section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2017. February 23.
- Devoe, D. J., B. Wong, M. T. James, et al. 2016. Patient education and peritoneal dialysis modality selection: A systematic review and meta-analysis. *American Journal of Kidney Diseases* 68, no. 3 (September): 422–433.
- Dialysis Clinic Inc. 2019. Comprehensive end-stage renal disease care model and future payment models. <https://www.dciinc.org/newsroom/comprehensive-end-stage-renal-disease-care-model-and-future-payment-models/>.
- Ephraim, P. L., N. R. Powe, H. Rabb, et al. 2012. The providing resources to enhance African American Patients’ Readiness to Make Decisions about Kidney Disease (PREPARED) study: Protocol of a randomized controlled trial. *BMC Nephrology* 13: 135.
- Fishbane, S., S. Agoritsas, A. Bellucci, et al. 2017. Augmented nurse care management in CKD Stages 4 to 5: A randomized trial. *American Journal of Kidney Diseases* 70, no. 4 (October): 498–505.
- Food and Drug Administration. 2018. FDA drug shortages. https://www.accessdata.fda.gov/scripts/drugshortages/dsp_ActiveIngredientDetails.cfm?AI=Peritoneal%20Dialysis%20Solutions&st=c.
- Government Accountability Office. 2015. *End-stage renal disease: Medicare payment refinements could promote increased use of home dialysis*. Washington, DC: GAO.
- Government Accountability Office. 2013. *End-stage renal disease: CMS should improve design and strengthen monitoring of low-volume adjustment*. Report 13–287. Washington, DC: GAO.
- Kaiser Permanente. 2017. Regaining control when facing kidney failure. <https://permanente.org/regaining-control-when-facing-kidney-failure/>.
- Kalantar-Zadeh, K. 2018. Is ESCO the future of dialysis care? *Renal & Urology News*, October 12.
- Lin, E., X. S. Cheng, K. K. Chin, et al. 2017. Home dialysis in the prospective payment system era. *Journal of the American Society of Nephrology* 28, no. 10 (October): 2993–3004.

- Marrufo, G., B. Negrusa, D. Ullman, et al. 2017. *Comprehensive EndStage Renal Disease Care (CEC) Model: Performance Year 1 annual evaluation report*. Report prepared by the Lewin Group for the Centers for Medicare & Medicaid Services. Baltimore, MD: CMS.
- Medicare Payment Advisory Commission. 2018a. Comment letter to CMS on the end-stage renal disease prospective payment system and Quality Incentive Program proposed rule, August 31.
- Medicare Payment Advisory Commission. 2018b. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2018c. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016a. Comment letter on CMS's proposed rule on the ESRD prospective payment system, July 29.
- Medicare Payment Advisory Commission. 2016b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015. Comment letter to CMS on the ESRD prospective payment system and the ESRD Quality Incentive Program, August 6.
- Medicare Payment Advisory Commission. 2014a. Comment letter to CMS on the end-stage renal disease prospective payment system and Quality Incentive Program proposed rule, August 15.
- Medicare Payment Advisory Commission. 2014b. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2001. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2000. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Melanson, T. A., J. M. Hockenberry, L. Plantinga, et al. 2017. New kidney allocation system associated with increased rates of transplants among Black and Hispanic patients. *Health Affairs* 36, no. 6 (June 1): 1078–1085.
- Neumann, M. 2014. Baxter, FMC sign supply agreement; ISPD ‘deeply concerned’ about PD fluid shortage. *Nephrology News & Issues*, September 3.
- Organ Procurement and Transplantation Network. 2018. National data. <https://optn.transplant.hrsa.gov/data/view-data-reports/national-data/>.
- Palmer, S. C., I. Nistor, J. C. Craig, et al. 2013. Cinacalcet in patients with chronic kidney disease: A cumulative meta-analysis of randomized controlled trials. *PLoS Medicine* 10, no. 4: e1001436.
- Pfizer. 2018. Pfizer's biosimilar Retacrit® (epoetin alfa-epbx) approved by U.S. FDA. Press release. https://www.pfizer.com/news/press-release/press-release-detail/pfizer_s_biosimilar_retacrit_epoetin_alfa_epbx_approved_by_u_s_fda.
- Reuters. 2016. FMC aims for 110,000 U.S. patients to be on Mircera in first-quarter. February 24. <http://www.reuters.com/article/us-fresenius-medi-results-mircera-idUSKCN0VX11F>.
- Schneider, C., and L. Lines, National Institute of Diabetes and Digestive and Kidney Diseases. 2018. *HCIA round two evaluation: Northwell Health*. Cambridge, MA: Mathematica Policy Research.
- Seaborg, E. 2015. Peritoneal dialysis fluid shortage disrupted growth of popular therapy. *Kidney News*, March.
- Seeking Alpha. 2018. American Renal Associates (ARA) CEO, Joe Carlucci on Q3 2018 results—Earnings call transcript. <https://seekingalpha.com/article/4220467-american-renal-associates-ara-ceo-joe-carlucci-q3-2018-results-earnings-call-transcript?part=single>.
- Seeking Alpha. 2016. Fresenius Medical Care AG & Co. KGaA (FMS) Rice Powell on Q4 2015 results—Earnings call transcript. February 24. <https://seekingalpha.com/article/3926506-fresenius-medical-care-ag-and-co-kga-fms-rice-powell-q4-2015-results-earnings-call>.
- United States Renal Data System, National Institute of Diabetes and Digestive and Kidney Diseases. 2018. *USRDS 2018 annual data report*. Bethesda, MD: NIDDK.

CHAPTER

7

Cross-cutting issues in post-acute care

Cross-cutting issues in post-acute care

Chapter summary

Post-acute care (PAC) providers offer important recuperation and rehabilitation services to Medicare beneficiaries, about half of whom had a prior hospital stay. PAC providers include skilled nursing facilities (SNFs), home health agencies (HHAs), inpatient rehabilitation facilities (IRFs), and long-term care hospitals (LTCHs). In 2017, fee-for-service (FFS) program spending on PAC services totaled \$58.5 billion.

The Commission has previously discussed the challenges to increasing the accuracy of Medicare's payments and overcoming the shortcomings of the separate FFS payment systems for PAC (Medicare Payment Advisory Commission 2018, Medicare Payment Advisory Commission 2017, Medicare Payment Advisory Commission 2015, Medicare Payment Advisory Commission 2014). Over more than a decade, the Commission has worked extensively on PAC payment reform, pushing for closer alignment of costs and payments and more equitable payments across different types of patients.

Despite some actions by the Secretary and the Congress, Medicare's payments remain too high relative to the costs of treating beneficiaries in three of the four settings (SNF, HHA, and IRF). After years of research and recommendations by the Commission, the Secretary is poised to make substantial changes to the designs of the prospective payment systems

In this chapter

- Medicare's payments remain high, and revisions to the SNF and HHA payment systems need to be implemented
- Quality measures should focus on claims-based outcome measures
- Conclusion

(PPSs) Medicare uses to pay HHAs and SNFs. These changes are overdue and are consistent with longstanding recommendations made by the Commission.

The Commission has two goals in making payment recommendations. The *update* recommendations aim to ensure that aggregate payments are adequate so that beneficiary access is preserved while taxpayers and the long-run sustainability of the program are protected. The recommendations to *revise the payment systems* aim to align program payments with the costs of treating patients with different care needs. Such targeting increases the equity of the program's payments, thereby minimizing the financial incentive for providers to treat some beneficiaries over others.

A uniform payment system for all PAC would increase the equity of payments across patients and providers in all settings, but its implementation is on a longer timetable. Until a unified PAC PPS is in place, Medicare must continue to improve its setting-specific payment systems. FFS Medicare continues to overpay for PAC services; moreover, the current HHA and SNF payment systems also create inequities across patients with different care needs and the providers that treat them. Furthermore, the overpayments and misalignments affect the benchmarks for Medicare Advantage plans and alternative payment models.

On the quality front, there has been progress on defining common outcome measures across PAC providers and establishing value-based purchasing policies for HHAs (on a demonstration basis) and for SNFs. However, the Commission is increasingly concerned that trends in some provider-reported quality measures raise questions about the accuracy and reliability of this information. The Commission has work underway to examine the accuracy of the patient assessment-based quality measures. ■

Medicare's payments remain high, and revisions to the SNF and HHA payment systems need to be implemented

Post-acute care (PAC) providers offer important recuperation and rehabilitation services to Medicare beneficiaries, about half of whom had a prior hospital stay. PAC providers include skilled nursing facilities (SNFs), home health agencies (HHAs), inpatient rehabilitation facilities (IRFs), and long-term care hospitals (LTCHs). In 2017, fee-for-service (FFS) program spending on PAC services totaled \$58.5 billion.

Since 2008, the Commission has made recommendations to lower the level of program spending in each of the PAC settings by eliminating annual updates to payment rates, lowering payments below current levels, or both. To redistribute payments more equitably between therapy

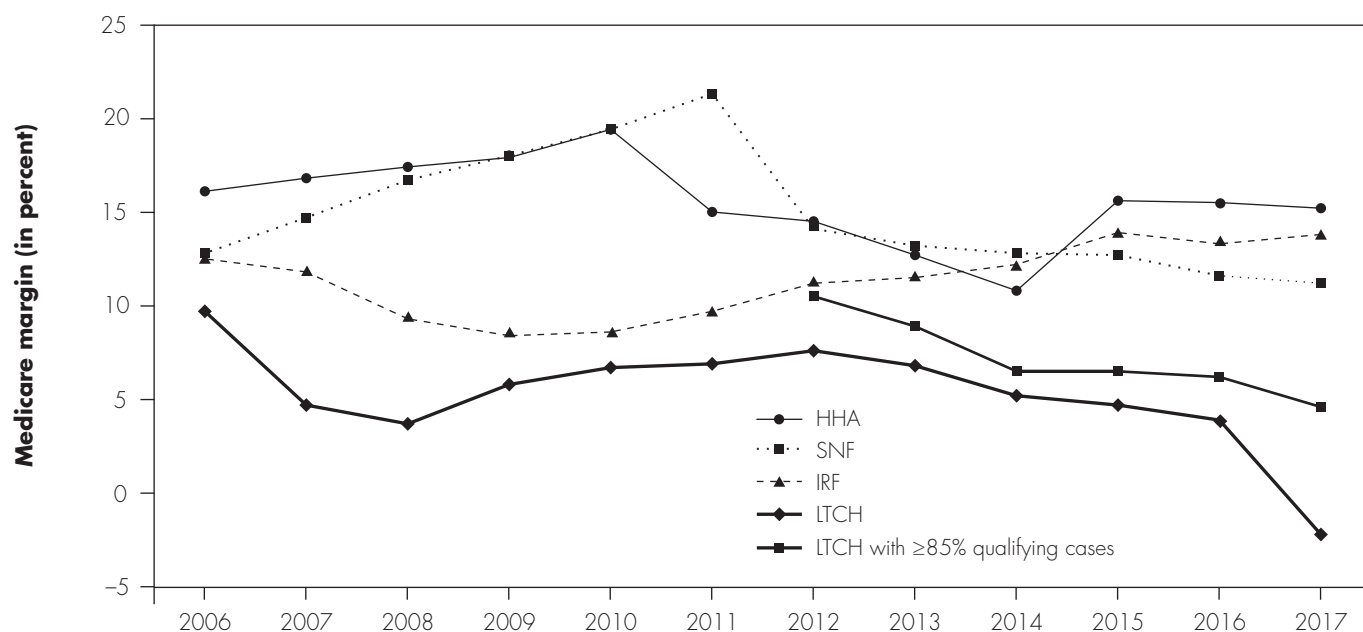
and medically complex care, the Commission has recommended redesigns of the HHA and SNF payment systems (in 2011 and 2008, respectively), which together pay for almost 80 percent of Medicare PAC stays.

Medicare margins for three of the PAC settings (HHA, SNF, and IRF) have been above 10 percent for most of the past 10 years (Figure 7-1). In each setting, Medicare margins increased substantially soon after a prospective payment system (PPS) was implemented, indicating that the initial base rates for each setting were too high and that providers rapidly adjusted to the new payment rules.

Medicare margins for HHAs and SNFs have been especially high, even after rebasing and productivity and other payment adjustments mandated by the Congress. Over the last decade, Medicare margins in HHAs and SNFs averaged over 15 percent. Close behind, IRF margins averaged 11.1 percent. The average margin for all LTCHs has been considerably lower, though higher for

FIGURE 7-1

Medicare margins have remained high for most post-acute care providers



Note: HHA (home health agency), SNF (skilled nursing facility), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital). Medicare margin is calculated as (Medicare payments – Medicare costs)/Medicare payments. The Pathway to SGR Reform Act of 2013 established separate payment methodologies in cases that qualify as LTCH discharges and cases that do not. To qualify as an LTCH discharge, the stay either must have been immediately preceded by an acute care hospital stay that included at least three days in an intensive care unit or have had an LTCH principal diagnosis indicating prolonged mechanical ventilation. We did not calculate margins for LTCH-qualifying discharges before 2012.

Source: MedPAC analysis of Medicare cost reports 2006–2017.

**TABLE
7-1****Commission's payment recommendations since 2008**

Recommended action	Years the Commission made the recommendation			
	SNF	HHA	IRF	LTCH
No update (0 percent update)	2008–2011; 2016–2018	2008–2016	2008–2016	2009–2018
Lower payments	2012–2015	2009–2018	2017–2018	
Revise the payment system design	2008–2018	2011–2018		

Note: SNF (skilled nursing facility), HHA (home health agency), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital). The table shows the years the recommendation was made by the Commission. A year can appear in the 0 percent update and lower payment categories because a recommendation covered multiple years, with a 0 percent update in one year and reductions in one or more subsequent years.

providers with at least 85 percent of stays that meet the new criteria to qualify to receive LTCH PPS payments.

Because the level of program payments has been high relative to the cost of treating beneficiaries, the Commission has recommended lowering and/or freezing Medicare's payment rates for PAC for many years (Table 7-1). For HHAs, SNFs, and IRFs, the Commission recommended no updates (0 percent updates) or lower payments each year since 2008 and for LTCHs since 2009. In some years, the Commission made a multiyear recommendation that included no update to payment rates in one year and reductions in subsequent years. Yet during this period, without congressional action, SNF, IRF, and LTCH payments were increased by statutory updates. For HHAs, although the Patient Protection and Affordable Care Act of 2010 calls for annual rebasing of payments, the mandated reductions have been offset by updates to payment rates and consequently have not gone nearly far enough in realigning payments to costs.

The Commission also recommended revising the payment systems for HHAs (in 2011) and SNFs (in 2008) to increase the equity of program payments. The Commission is pleased that the Secretary is poised to implement changes to the HHA and SNF PPSs that will base payments on the clinical and functional characteristics of patients, not on the amount of therapy furnished. The Bipartisan Budget Act of 2018 requires CMS to implement major changes to the home health PPS

in calendar year 2020, and CMS plans to overhaul the SNF PPS in fiscal year 2020. Both redesigns are consistent with the Commission's recommended changes and would rebalance payments between therapy cases and medically complex cases. By increasing the equity of program payments, providers will have less financial incentive to favor admitting beneficiaries with certain care needs over other beneficiaries. The Commission urges the Secretary to proceed with these planned reforms.

Quality measures should focus on claims-based outcome measures

Since 1999, the Commission has called for a variety of quality initiatives, including the collection of uniform patient assessment information, the reporting of outcome-based quality measures that focus on the key goals of PAC, and the implementation of value-based purchasing policies. The Congress and CMS have acted on many of the Commission's recommendations, including the development and collection of uniform patient assessment items, outcome-based quality measures, and value-based purchasing for HHAs and SNFs. To meet the requirements in the Improving Medicare Post-Acute Care Transformation Act of 2014, CMS has undertaken the development of measures of function and cognition, skin integrity, Medicare spending per beneficiary,

discharge to community, hospital readmissions, medication reconciliation, and incidence of major falls. The Commission has raised concerns that not all of the measures are outcome based or uniformly defined across the settings, though such refinements may be made in the future.

Because the maintenance of and improvement in function are key goals of PAC, the Commission recommended the development of uniform patient assessment items across the four PAC settings. Information on a patient's functional status, cognitive status, and changes in function are used to establish care plans for patients, risk adjust payments, and measure quality of care. The HHA, SNF, and IRF PPSs use patient assessment data to define the case-mix groups that establish payments for most of the patient groups cared for. In addition, the HHA value-based purchasing demonstration uses measures of function to calculate provider performance.

Because patient assessment information affects payments and quality results, it is important that it consistently and accurately reflects patients' levels of function. However, the use of this information to set payments and measure and reward quality creates incentives for providers to report it in ways that boost payments. Over time, we have become increasingly concerned about the validity and utility of provider-reported patient assessment information. Our recent analyses of provider-reported measures calculated from patient assessment information have raised concerns that information gathered from these sources may not be accurate. For example, on average, HHAs have reported considerable improvement over the course of an episode in patients' abilities to conduct activities of daily living (such as walking and transferring). Yet, during the same time period, there was little or no improvement in claims-based measures (such as hospitalization and emergency room use).¹ These divergent trends raise questions about the accuracy of the provider-reported information. In IRFs, where lower function at admission translates into higher payments, we found that high-margin IRFs appear to record lower patient function compared

with other IRFs for like patients. The Commission is concerned that when provider-reported patient assessment information affects a provider's payments, providers respond inappropriately to these financial incentives.

Given these disturbing trends, the Commission is increasingly wary of the accuracy of the provider-reported patient assessment information. The Commission has work underway to assess these data. Although these data are important for measuring patient outcomes and establishing care plans, they may not be key to establishing accurate payments. Our initial work on a unified PAC PPS found that payments could be accurate without measures of patient function. The Commission will continue its work on design elements of a PAC PPS, including whether function is a necessary component of a case-mix system.

Conclusion

As evidenced by years of high Medicare margins, the program is paying more for services than is warranted. Further, its payment systems unfairly advantage some providers and encourage the admission of patients with certain care needs over others. Because FFS payment rates form the basis of Medicare Advantage benchmarks and accountable care organization targets, the overpayments also affect non-FFS payment models and their success. From the taxpayers' perspective, unnecessarily high payments contribute to the projected insolvency of the Hospital Insurance Trust Fund (2026). The Secretary plans to implement long overdue changes to the SNF (in fiscal year 2020) and HHA (in calendar year 2020) PPSs. The Commission urges the Secretary to follow through with these plans.

Until the implementation of a unified PAC PPS, Medicare must continue to improve its setting-specific payment systems so that it does not overpay for services and create inequities that can affect beneficiaries' access to care. ■

Endnotes

- 1 We would expect similar trends in the provider-reported and claims-based measures. Studies have found that functional status is related to hospitalization rates and the use of emergency departments (Laudisio et al. 2015, Middleton et al. 2018, Slocum et al. 2015, Soley-Bori et al. 2015).

References

Laudisio, A., E. Marzetti, F. Franceschi, et al. 2015. Disability is associated with emergency room visits in the elderly: A population-based study. *Aging Clinical and Experimental Research* 27, no. 5 (October): 663–671.

Medicare Payment Advisory Commission. 2018. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2015. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2014. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Middleton, A., J. E. Graham, and K. J. Ottenbacher. 2018. Functional status is associated with 30-day potentially preventable hospital readmissions after inpatient rehabilitation among aged Medicare fee-for-service beneficiaries. *Archives of Physical Medicine and Rehabilitation* 99, no. 6 (June): 1067–1076.

Slocum, C., P. Gerrard, R. Black-Schaffer, et al. 2015. Functional status predicts acute care readmissions from inpatient rehabilitation in the stroke population. *PLoS One* 10, no. 11: e0142180.

Soley-Bori, M., R. Soria-Saucedo, C. M. Ryan, et al. 2015. Functional status and hospital readmissions using the Medical Expenditure Panel Survey. *Journal of General Internal Medicine* 30, no. 7 (July): 965–972.

C H A P T E R

8

Skilled nursing facility services

R E C O M M E N D A T I O N S

- 8-1** The Secretary should proceed to revise the skilled nursing facility prospective payment system in fiscal year 2020 and should annually recalibrate the relative weights of the case-mix groups to maintain alignment of payments and costs.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

-
- 8-2** The Congress should eliminate the fiscal year 2020 update to the Medicare base payment rates for skilled nursing facilities.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Skilled nursing facility services

Chapter summary

Skilled nursing facilities (SNFs) provide short-term skilled nursing and rehabilitation services to beneficiaries after a stay in an acute care hospital. In 2018, about 15,000 SNFs furnished 2.3 million Medicare-covered stays to 1.6 million fee-for-service (FFS) beneficiaries. Medicare FFS spending on SNF services was \$28.4 billion in 2017, about 1 percent less than in 2016. Just over 4 percent of beneficiaries used SNF services.

Assessment of payment adequacy

To examine the adequacy of Medicare's payments, we analyze beneficiaries' access to care (including the supply of providers and volume of services), quality of care, provider access to capital, and Medicare payments in relation to providers' costs to treat Medicare FFS beneficiaries. Most indicators of the adequacy of Medicare's payments are positive.

Beneficiaries' access to care—Access to SNF services remains adequate for most beneficiaries.

- **Capacity and supply of providers**—The number of SNFs participating in the Medicare program has been stable. The vast majority (89 percent) of beneficiaries live in a county with three or more SNFs or swing bed facilities (rural hospitals with beds that can serve as either SNF beds or acute care beds), and less than 1 percent live in a county without one.

In this chapter

- Are Medicare payments adequate in 2019?
- How should Medicare payments change in 2020?
- Medicaid trends

Between 2016 and 2017, the median occupancy rate declined slightly but remained high (about 85 percent).

- ***Volume of services***—Medicare-covered admissions per FFS beneficiary decreased 2 percent between 2016 and 2017, consistent with a decrease in the number of admissions for hospital stays that last at least three days (required for Medicare coverage). Lengths of stay also declined by 2 percent. Both contributed to fewer covered days in 2017 compared with 2016. Lower SNF use reflects the growing presence of alternative payment models, not the adequacy of Medicare’s payments.
- ***Marginal profit***—An indicator of whether freestanding SNFs have an incentive to treat more Medicare beneficiaries—marginal profit—averaged 19.1 percent for freestanding facilities in 2017.

Quality of care—Since 2011, SNF quality measures have shown mixed performance. The average rate of discharge to the community increased and the average rate of readmission during the SNF stay improved, the average rate of readmissions after the SNF stay worsened, and the measures of mobility remained the same. Changes in the measures between 2016 and 2017 were similarly mixed.

Providers’ access to capital—Because most SNFs are part of nursing homes, we examine nursing homes’ access to capital. Despite relatively low total margins (a measure of the total financial performance across all payers and lines of business), lending and investment activities remain robust. Access to capital was adequate in 2018 and is expected to remain so in 2019. Lending wariness reflects broad changes in post-acute care, not the adequacy of Medicare’s payments. Medicare is regarded as a preferred payer of SNF services.

Medicare payments and providers’ costs—Medicare’s spending in 2017 decreased 1 percent to \$28.4 billion. In 2017, the average Medicare margin for freestanding SNFs was 11.2 percent—the 18th year in a row that the average was above 10 percent. Margins varied greatly across facilities, reflecting differences in costs and shortcomings in the SNF prospective payment system (PPS) that favor treating rehabilitation patients over medically complex patients.

Revisions to the PPS are still needed to improve the accuracy and equity of Medicare’s payments across different types of patients. CMS plans to revise the SNF PPS beginning in fiscal year 2020. The redesign will increase payments for medically complex patients and patients with high costs for nontherapy ancillary items (such as drugs), consistent with the Commission’s previously recommended designs for the SNF PPS and a unified post-acute care PPS.

The Commission recommends that the Secretary proceed with revising the SNF PPS and annually recalibrate the relative weights of the case-mix groups to keep payments aligned with the costs of care. The implementation of a revised SNF PPS will increase the equity of Medicare's payments across different conditions and narrow the disparities in financial performance across SNFs. The redesigned PPS is likely to alter the mix of cases treated in SNFs, providers' cost structures, and the relative costs of different types of stays. To keep costs and payments aligned across types of cases, CMS will need to regularly recalibrate the relative weights of the new case-mix groups.

The level of payments continues to be well above the cost to treat Medicare beneficiaries. Several factors indicate that the aggregate level of Medicare's payments remains too high. First, since 2000, the average Medicare margin has been above 10 percent; the marginal profit in 2017 was even higher (19 percent), suggesting that facilities with available beds have an incentive to admit Medicare patients. Medicare Advantage (managed care) payment rates to SNFs, considered attractive by many SNFs, are considerably lower than the program's FFS payments. The small differences between beneficiaries enrolled in Medicare Advantage and FFS who used SNF services in 2017 would not explain the large difference in payments. Costs varied widely for reasons unrelated to case mix and wages. The very high Medicare margin (18 percent) for efficient SNFs—those providers with relatively low costs and high quality—is further evidence that Medicare continues to overpay for SNF care.

Considering these factors, the Commission recommends that the Congress eliminate the fiscal year 2020 update to the Medicare base rates. While the level of payments indicates a reduction to payments is needed to more closely align aggregate payments and costs, the SNF industry is likely to undergo considerable changes as it adjusts to the redesigned PPS. Given the impending changes, the Commission will proceed cautiously in recommending reductions to payments. A zero update would begin to align payments with cost while exerting pressure on providers to keep their cost growth low.

Medicaid trends

As required by the Patient Protection and Affordable Care Act of 2010, we report on Medicaid use and spending and non-Medicare (private-payer and Medicaid) margins. Medicaid finances most long-term care services provided in nursing homes, but also covers the copayments on SNF care for low-income Medicare beneficiaries (known as dual-eligible beneficiaries) who stay more than 20 days in a SNF. The number of Medicaid-certified facilities has declined slightly since 2013,

by less than 1 percent, but remains close to 15,000. CMS reports total FFS spending on nursing home services declined 1.6 percent between 2016 and 2017 but projects small increases for 2019.

In 2017, the average total margin—reflecting all payers (including managed care, Medicaid, Medicare, and private insurers) and all lines of business (such as hospice, ancillary services, home health care, and investment income)—was 0.5 percent, down from 2016 (0.7 percent). The average non-Medicare margin (which includes all payers and all lines of business except Medicare FFS SNF services) was –2.4 percent, the same as in 2016. ■

Background

Skilled nursing facilities (SNFs) provide short-term skilled nursing care and rehabilitation services such as physical and occupational therapy and speech–language pathology services. Examples of SNF patients include beneficiaries recovering from surgical procedures such as hip and knee replacements or from medical conditions such as stroke and pneumonia. In 2017, almost 1.6 million fee-for-service (FFS) beneficiaries (4.2 percent of Part A FFS beneficiaries) used SNF services at least once; program spending on SNF services was \$28.4 billion (about 7 percent of FFS spending) (Boards of Trustees 2018, Office of the Actuary 2018b). Medicare’s median payment per day was \$480, and its median payment per stay was \$18,121.¹ In 2016, about one-fifth of hospitalized beneficiaries were discharged to SNFs.

Medicare covers up to 100 days of SNF care per spell of illness after a medically necessary inpatient hospital stay of at least 3 days.² For beneficiaries who qualify for a covered stay, Medicare pays 100 percent of the payment for the first 20 days of the spell of illness. Beginning with day 21, beneficiaries are responsible for copayments for day 21 through day 100 of the covered stay. For fiscal year 2019, the copayment is \$170.50 per day.

The term *skilled nursing facility* refers to a provider that meets Medicare requirements for Part A coverage.³ Most SNFs (more than 90 percent) are dually certified as SNFs and nursing homes (which typically provide less intensive, long-term care services). Thus, a facility that provides skilled care often also provides long-term care services that Medicare does not cover. Medicaid pays for the majority of nursing facility days.

The mix of facilities where beneficiaries receive skilled nursing care has shifted over time toward freestanding and for-profit facilities. In 2017, almost all facilities were freestanding (96 percent), and they accounted for an even larger share of revenue (97 percent; Table 8-1) than other types of facilities. Hospital-based SNFs made up a small share (4 percent or less) of facilities, stays, and spending. For-profit facilities accounted for 71 percent of all SNFs and 75 percent of revenues.

Medicare FFS–covered SNF days typically account for a small share of a facility’s total patient days but a disproportionately larger share of the facility’s revenues. In freestanding facilities in 2017, Medicare FFS beneficiary stays constituted 11 percent of total facility days but accounted for 19 percent of facility revenue, a decline from 2010 when FFS Medicare accounted for 23 percent of facility revenue (data not shown). The decrease in the FFS Medicare share of revenues reflects the growth in Medicare Advantage (MA) enrollment.

**TABLE
8-1**

Freestanding SNFs and for-profit SNFs accounted for the majority of facilities, Medicare stays, and Medicare spending, 2017

Type of SNF	Facilities	Medicare-covered stays	Medicare spending
Total number	15,090	2,266,301	\$25.9 billion
Freestanding	96%	96%	97%
Hospital based	4	4	3
Urban	73	83	85
Rural	27	17	15
For profit	71	71	75
Nonprofit	23	24	21
Government	6	4	4

Note: SNF (skilled nursing facility). Totals may not sum to 100 percent due to rounding and missing values. The spending amount included here is lower than that reported by the Office of the Actuary, and the count of SNFs is slightly lower than what is reported in CMS’s Survey and Certification Providing Data Quickly system.

Source: MedPAC analysis of the Provider of Services and Medicare Provider Analysis and Review files for 2017.

The most common hospital conditions of patients referred to SNFs for post-acute care are septicemia, joint replacement, heart failure and shock, hip and femur procedures (except major joint replacement), kidney and urinary tract infections, chronic obstructive pulmonary disease, renal failure, and pneumonia. In 2017, the top 10 diagnoses accounted for 43 percent of all SNF stays. Compared with other beneficiaries, SNF users are older; more frail; and disproportionately female, disabled, living in an institution, and dually eligible for Medicare and Medicaid (Medicare Payment Advisory Commission 2013).

SNF prospective payment system and its shortcomings

Medicare uses a prospective payment system (PPS) to pay SNFs for each day of service.⁴ Information gathered from a standardized patient assessment instrument—the Minimum Data Set—is used to classify patients into case-mix categories called resource utilization groups (RUGs).⁵ Although the payment system is referred to as “prospective,” two features undermine how prospective it is: The system makes payments for each day of care (rather than a set payment for the entire stay), and it bases payments partly on the minutes of rehabilitation therapy furnished to a patient. Both features result in providers having some control over how much Medicare will pay them for their services.

Almost since its inception, the SNF PPS was criticized for encouraging the provision of excessive rehabilitation therapy services and not accurately targeting payments for nontherapy ancillary (NTA) items such as drugs (Government Accountability Office 2002, Government Accountability Office 1999, White et al. 2002). Over time, the accuracy of Medicare’s payments has steadily eroded: Payments for NTA services are unrelated to the cost of SNF care, and therapy payments have become less and less proportional to the costs of therapy services.⁶ As a result, the PPS continues to advantage providers that furnish therapy services unrelated to a patient’s condition and avoid patients with high NTA costs (Medicare Payment Advisory Commission and The Urban Institute 2015). The Office of Inspector General (OIG) of the Department of Health and Human Services found that the profitability of therapy services increased as the amount of therapy provided per day increased (Office of Inspector General 2015).

In 2008, the Commission recommended revising the PPS to base therapy payments on patient characteristics

(not service provision); remove payments for NTA services from the nursing component; establish a separate component within the PPS that adjusts payments for NTA services; and implement an outlier payment policy (Medicare Payment Advisory Commission 2008). The Commission’s recommended revisions to the PPS would increase the equity of Medicare’s payments and result in considerable redistribution of payments, raising payments for medically complex patients and decreasing them for patients who receive intensive rehabilitation therapy that appears unrelated to their clinical conditions (Medicare Payment Advisory Commission and The Urban Institute 2015).⁷ The revisions should increase access for patients requiring complex medical care or costly drugs. Based on the mix of patients and therapy practices, payments would increase for hospital-based facilities and nonprofit facilities and would decrease for freestanding facilities and for-profit facilities. The effects on individual facilities would depend on their mix of patients and current therapy practices.

Each year since 2008, the Commission has urged CMS to move forward with the much-needed reform and, since 2012, recommended revising and rebasing the SNF PPS to address both the distribution and level of payments (Medicare Payment Advisory Commission 2012). The Commission was not alone in calling for an overhaul of the SNF PPS. OIG recommended that CMS evaluate the extent to which therapy payments should be reduced, change the method for paying for therapy, adjust Medicare payments based on patient characteristics (not the amount of therapy furnished), and strengthen the oversight of SNF billing (Office of Inspector General 2015).

CMS plans to revise the SNF PPS beginning October 1, 2019

CMS’s work on alternative designs for the SNF PPS began 13 years ago in response to a legislative requirement (the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000) to conduct research on potential refinements of the SNF PPS (Liu et al. 2007, Maxwell et al. 2003, Urban Institute 2004). In 2017, CMS issued an advanced notice of proposed rulemaking and sought comments on a redesign of the SNF PPS that it planned to implement in fiscal year 2019 (Centers for Medicare & Medicaid Services 2017). Considering stakeholder comments, CMS revised the design and delayed implementation until fiscal year 2020 (Centers for Medicare & Medicaid Services 2018b).

Consistent with the Commission’s recommended design for the SNF PPS, CMS’s patient-driven payment model will base payments on patient characteristics, not the amount of therapy services furnished to patients. There will be five components—nursing, physical and occupational therapy, speech–language pathology, NTA, and room and board—that will be summed to establish a daily payment. Except for the room and board component (which is uniform for every day of care), each component will have its own case-mix factors in which clinical characteristics play a considerably larger role compared with the current design. To reflect the declining average daily costs for physical and occupational therapy and NTA services over the course of a stay, the daily payments for these components will be lower for days later in the stay. So that individual therapy remains the dominant modality, group and concurrent therapy cannot make up more than 25 percent of total therapy minutes. Given the clinical focus of the redesign, SNFs are likely to evaluate the clinical and coding expertise of its staff and the presence of physicians and medical directors and to reassess their contracts with therapy vendors.

CMS estimates that the design will redistribute payments from patients assigned to the highest rehabilitation case-mix groups to medical patients, patients with high NTA costs, and patients requiring tracheostomy or ventilator services (Centers for Medicare & Medicaid Services 2018b). This redistribution is consistent with the Commission’s recommended designs for the SNF PPS and a unified post-acute care (PAC) PPS. CMS noted that the redesigned SNF PPS will bring the payment system closer to an eventual transition to a unified PAC PPS (Centers for Medicare & Medicaid Services 2018b). Although intended to be budget neutral, provider responses to the new PPS, including changes in the recording of patient diagnoses, will shape how spending will change. Because case mix, service provision, and cost structures are likely to change for many SNFs, CMS may need to recalibrate the relative weights of the case-mix groups to keep payments aligned with the cost of care.

Are Medicare payments adequate in 2019?

To examine the adequacy of Medicare’s FFS payments, we analyze beneficiaries’ access to care (including the supply of providers and volume of services), quality of

care, providers’ access to capital, Medicare FFS payments in relation to costs to treat Medicare beneficiaries, and changes in payments and costs. We also compare the performance of SNFs that have relatively high Medicare margins and those with low Medicare margins, and we compare relatively efficient SNFs with other SNFs.

Beneficiaries’ access to care: Access is stable for most beneficiaries

We do not have direct measures of access in part because the need for SNF care, as opposed to the need for a different PAC service or none at all, is not well defined. Instead, we consider the supply and capacity of providers and evaluate changes in service volume. We also assess whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve.

The number of SNFs participating in the Medicare program in 2018 was stable at 15,326 (Centers for Medicare & Medicaid Services 2018a). There was a handful of new facilities (73, the majority of which were for profit) and a number of terminations. There have been 69 terminations as of November 2018, most of which were at the facilities’ initiative. This number is greater than at the same point in 2017, when there were 51 terminations.

The SNF industry is highly fragmented and characterized by independent providers and local and regional chains. Of the 50 largest operators, most are privately held. The 25 largest nursing home chains in the country operate 19 percent of all facilities (IQVIA Institute for Human Data Science 2018). Single operators make up about 40 percent of the industry, small (often regional or religious) operators make up about one-quarter of facilities, with the remaining third run by large chains (Ritchie and Johnson 2017). The share of hospitals with financial links to SNFs has slowly increased as alternative payment models encourage hospitals to lower spending and improve clinical outcomes for services furnished in post-acute care. In 2015, 18 percent of hospitals had a financial link to a SNF, up from 11 percent in 2005 (Fowler et al. 2017). One study found that the integration of hospitals and SNFs increases Medicare payments for the hospital and PAC stays (combined) by extending the lengths of the SNF stays but also lowers rehospitalization rates (Konetzka et al. 2016).

In 2017, 89 percent of beneficiaries lived in counties with three or more SNFs or swing bed facilities (rural hospitals with beds that can serve as either SNF beds or acute care beds). Less than 1 percent of beneficiaries lived in a

**TABLE
8-2****SNF admissions and days continued to decline in 2017**

Volume measure	2010	2013	2016	2017	Percent change 2016–2017	Percent change 2010–2017
Covered admissions per 1,000 FFS beneficiaries	73.0	69.3	65.9	64.6	–2.0%	–11.5%
Covered days per 1,000 FFS beneficiaries	1,972	1,872	1,693	1,623	–4.1	–17.7
Covered days per admission	27.1	27.0	25.7	25.1	–2.3	–7.4

Note: SNF (skilled nursing facility), FFS (fee-for-service). “FFS beneficiaries” includes users and non-users of SNF services. Data include 50 states and the District of Columbia.

Source: Centers for Medicare & Medicaid Services 2018c.

county without a SNF or swing bed facility, and another 11 percent lived in counties with one or two SNFs or swing bed facilities.

Between 2016 and 2017, median occupancy rates for freestanding SNFs declined slightly but remained high (84.7 percent). The lower occupancy rates reflect shorter stays and fewer admissions. Occupancy rates at hospital-based facilities were slightly lower (80.4 percent). There is wide variation in occupancy rates. In 2017, one-quarter of freestanding facilities had occupancy rates at or below 73 percent while another quarter had rates 91 percent or higher. This variation indicates that some markets have the capacity to accommodate more admissions while other markets do not. The median occupancy rates for freestanding SNFs in rural areas and those in frontier locations were lower than the average (77 percent and 71 percent, respectively).

Between 2016 and 2017, SNF admissions decreased and stays shortened

In 2017, 4.2 percent of FFS beneficiaries used SNF services, the same share as in 2016. Between 2016 and 2017, SNF admissions per 1,000 FFS beneficiaries decreased 2 percent (Table 8-2) (Centers for Medicare & Medicaid Services 2018c). We examine service use for only FFS beneficiaries because the CMS data on users, days, and admissions do not include service use by beneficiaries enrolled in Medicare Advantage (MA) plans. Covered days per 1,000 FFS beneficiaries in 2017 declined 2.3 percent to 25.1 days. The combination of fewer admissions and shorter stays resulted in 4.1 percent fewer days per 1,000 beneficiaries. Since 2010, SNF

use by FFS beneficiaries declined over 11 percent, and covered days per admission decreased almost 18 percent.

The declines in SNF use reflects several trends, including a growing presence of alternative payment models such as accountable care organizations (ACOs) and bundled payments that result in fewer beneficiaries referred to SNF care and shortened stays (Colla et al. 2016, Dummit et al. 2016, McWilliams et al. 2017). Two studies of CMS’s mandatory bundling initiative found participating hospitals had lower use of institutional PAC but similar quality outcomes (Dummit et al. 2018, Finkelstein et al. 2018). The use of a narrower network of preferred SNFs has also resulted in shorter SNF stays (Dummit et al. 2018, Huckfeldt et al. 2018). Hospitals participating in the Comprehensive Care for Joint Replacement payment model have adopted several strategies that could enhance the care beneficiaries receive, including improved patient education; dedicated staff for coordinating care among the hospital, physicians, and PAC providers; earlier initiation of discharge planning; and wider use of standardized patient protocols (Dummit et al. 2018).

Some SNFs report negative experiences of pressure from ACOs and managed care organizations to shorten SNF stays. A study of 25 SNFs participating in managed care and ACOs reported increased paperwork and time spent negotiating longer stays for patients, instances of declining to admit patients who were likely to require long stays, and one instance of switching the attending physician to remove the patient from an ACO (Tyler et al. 2018). A survey of chief financial officers reported cumbersome processes that they said made it more difficult for patients to receive the care they needed (Ziegler 2018).

The decline in SNF admissions is also tied to the small decline in FFS per capita inpatient hospital stays that were three days or longer and therefore qualified beneficiaries for Medicare coverage of SNF care. Although total per capita inpatient admissions increased, hospital admissions for stays of at least three days decreased 0.6 percent. The expanded use of observation stays (during which a patient is observed and treated but not admitted to the hospital) by hospitals is another contributing factor to lower SNF use (Mendelson et al. 2018). Because a three-day hospital stay is required for Medicare coverage, some beneficiaries not meeting this requirement may continue to receive care that is not covered by Medicare or be discharged home.

Service mix reflects biases in PPS design

Since the PPS was implemented, providers have responded to the incentives to furnish enough therapy to classify days into rehabilitation case-mix groups and, within those groups, into the highest payment groups. Between 2002 and 2017, the share of days classified into rehabilitation case-mix groups in freestanding facilities increased from 78 percent to 95 percent; days assigned to special care, clinically complex, and extensive services made up the other 5 percent of days. During the same period, the share of intensive therapy days (days assigned to the ultra-high and very high groups) as a share of total days rose from 27 percent to 83 percent. The share of days assigned to the highest rehabilitation case-mix groups (the ultra-high group) increased from 7 percent to 58 percent.

Changes in the frailty of beneficiaries at admission to a SNF do not explain the increases in therapy. Between 2012 and 2017, the average SNF user was the same age and had the same average risk score but by 2017 was slightly less able to perform activities of daily living (ADLs). The average Barthel index, a composite measure of a person's disability, was 5 percent lower, indicating less ability to perform ADLs. For the 10 ADLs we examined, the shares of SNF users requiring the most help decreased for 7 activities, remained the same for 1 activity, and increased for 2 activities.⁸ Yet during this period, the amount of intensive therapy furnished to beneficiaries increased 15 percent. OIG found that SNFs had increased their billing for the highest levels of therapy even though beneficiary characteristics—including age and the reasons for and severity levels of the preceding hospital stay—remained unchanged (Office of Inspector General 2015). A study examining whether additional therapy improved patient outcomes (in this case, the likelihood of being discharged

home) focused on beneficiaries between 2000 and 2009 who were recovering from hip fracture (Jung et al. 2016). It found that patients with more therapy were more likely to be discharged home, but the benefit of additional therapy decreased as the therapy intensity increased, and there was no additional benefit for patients in the highest case-mix groups. The large growth in days assigned to the intensive therapy group raises the question of the value of these additional therapy services.

Facilities differed in the amount of intensive therapy they provided, though the differences by provider type and ownership have narrowed over time as all providers assigned a larger share of days to intensive rehabilitation case-mix groups. In 2017, there was a 16 percentage point difference between freestanding and hospital-based facilities in the share of days assigned to intensive therapy (83 percent in freestanding facilities, 67 percent in hospital-based facilities). There were smaller (2 percentage points) differences in case-mix between for-profit and nonprofit facilities (84 percent and 82 percent, respectively).

In 2017, the share of days assigned to medical case-mix groups or to extensive services case-mix groups was low (5 percent in 2017). Hospital-based units were disproportionately represented in the group of SNFs with the highest shares (defined as the top quartile) of medically complex admissions. While making up 4 percent of facilities, hospital-based SNFs made up 8 percent of the SNFs with the highest shares (the top quartile) of medically complex admissions.

In 2018, the Department of Justice continued to enforce the False Claims Act by investigating fraud and abuse in SNFs' therapy billings. It reached agreements in four cases to settle allegations of improperly billing for intensive therapy services that were not reasonably or medically necessary (Department of Justice 2018a, Department of Justice 2018b, Department of Justice 2018c, Department of Justice 2018d). The department alleged that the defendant engaged in one or more of the following strategies: falsely reporting the minutes of therapy delivered, furnishing services that were medically unnecessary given the patient's clinical care needs, discouraging therapists from providing services beyond the minimum threshold minutes for a given case-mix group, pressuring therapists and patients to complete planned minutes of care even when patients were sick

or declined to participate in therapy, or presumptively assigning patients to the highest rehabilitation case-mix group regardless of each patient's individual care needs. Since 2013, the Justice Department has settled 16 cases involving allegations of improper provision of rehabilitation therapy services.

Medicare's case-mix groups may have a broader impact beyond Medicare-covered stays. One study of nursing homes in New York found that nursing home residents (whose care is not covered by Medicare) treated in for-profit facilities in the last month of life were more likely to receive intensive therapy than low or medium levels of therapy (Temkin-Greener et al. 2018). New York Medicaid bases its payments on an older version of the same case-mix groups that Medicare uses, which considers the amount of therapy in establishing payments.

Though access does not appear to be an issue in general, industry representatives and patient advocates report that some providers are reluctant to admit patients with high NTA costs (such as those who need expensive antibiotics). The design proposed by CMS should improve access for these patients because payments will increase for patients with high NTA care needs by an estimated 27 percent (Centers for Medicare & Medicaid Services 2018b). Providers may avoid patients who are likely to require long stays and exhaust their Medicare benefits because a facility's daily payments decline if the patient becomes eligible for Medicaid or the stay results in bad debt.

Marginal profit: A measure of the attractiveness of Medicare patients

Another measure of access is whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries.⁹ For providers with available data, the marginal profit in 2017 was at least 19.1 percent. Because Medicare payments far exceed facilities' marginal costs, facilities with available beds have an incentive to admit Medicare patients, also signifying a positive indicator of patient access.

Quality of care: Measures indicate mixed performance

The Commission tracks three broad categories of SNF quality indicators: risk-adjusted rates of discharge to the community, hospital readmission, and change in functional status during the SNF stay (see text box on measures of SNF quality, pp. 204–205). We use these measures because they reflect the goals of most beneficiaries: to return home, avoid a readmission, and improve or maintain function. Because of evidence that the function information reported by inpatient rehabilitation facilities (IRFs) and home health agencies (HHAs) may reflect financial considerations, the Commission is concerned that the function information may not be reliable. The readmission rate during the SNF stay measures how well the SNF detects, monitors, and furnishes adequate care to prevent readmissions. The postdischarge measure indicates how well facilities prepare beneficiaries and their caregivers for safe and appropriate transitions to the next health care setting (or home).

Changes in quality show mixed results: Some measures have improved since 2011 while others have not. The average rates of discharge to the community and readmission during SNF stays improved, the average rate of readmissions after discharge from the SNF worsened, and two measures of change in function were essentially the same over this period. The most recent changes (between 2016 and 2017) also indicate mixed progress.

Rates of community discharge and readmissions show uneven progress

Since 2011, SNF outcome-based measures show mixed results; some measures improved while others worsened slightly (Table 8-3). The average risk-adjusted rates of discharge to the community steadily improved and reached 40 percent in 2017, up from 33.5 percent in 2011.¹⁰ During the same period, the average risk-adjusted rate of potentially avoidable readmissions during the SNF stay also improved, declining from 12.4 percent to 10.9 percent in 2017. The average risk-adjusted rate of potentially avoidable readmissions during the 30 days after discharge from the SNF worsened. Changes between 2016 and 2017 exhibited a similar mixed pattern: an improved discharge to community rate, a worse rate of readmissions after discharge from the SNF, and no change in the rate of readmissions during the SNF stay. There is a low correlation between the during-stay readmission rates and the readmission rates during the 30 days after discharge from the SNF (0.16, which was statistically significant

**TABLE
8-3****Mean risk-adjusted rates of community discharge and potentially avoidable readmissions, 2011–2017**

Measure	2011	2013	2015	2016	2017
Discharged to the community	33.5%	35.7%	38.8%	39.5%	40.0%
Potentially avoidable readmissions:					
During SNF stay	12.4	11.2	10.4	10.9	10.9
During 30 days after discharge from SNF	5.9	5.5	5.0	5.8	6.1

Note: SNF (skilled nursing facility). Higher rates of discharge to the community indicate better quality. Higher readmission rates indicate worse quality. Rates are the average of facility rates calculated for all facilities with 25 or more stays, except the rate of potentially avoidable readmissions during the 30 days after discharge, which is reported for all facilities with 20 or more stays.

Source: Analysis of fiscal year 2011 through fiscal year 2017 Minimum Data Set and inpatient acute hospital claims data for fee-for-service beneficiaries.

given the sample sizes), confirming that the measures capture different dimensions of quality.

The general trend of lower readmission rates during the SNF stay since 2011 in part reflects the increased attention from hospitals and ACOs to avoid readmission penalties by partnering with SNFs that have low readmission rates. Some hospitals have established preferred provider networks with higher quality SNFs, hoping to lower their own readmission rates in exchange for increased referrals to SNFs. Two studies found that hospitals with more extensive collaboration efforts (such as transition care and visits by hospital staff to SNFs) had fewer readmissions (Rahman et al. 2018, Zhu et al. 2018). Another study found that hospitals with a network of preferred SNFs had lower readmission rates from their partnering SNFs (McHugh et al. 2017). While hospitals on average lowered their readmission rates between 2007 and 2013, hospitals affiliated with ACOs were quicker to lower them (Winblad et al. 2017). Because the ACO-affiliated hospitals were at greater financial risk, they may have had more effective discharge planning and information sharing with the SNFs they used. In addition to partnering with hospitals, many SNFs want to secure volume from MA plans, though there is some evidence that MA plans guide their enrollees to lower quality facilities (Meyers et al. 2018).

As part of the Protecting Access to Medicare Act of 2014, the Congress enacted a SNF value-based purchasing (VBP) policy that uses one measure—readmissions within 30 days of discharge from the preceding hospital stay.¹¹ The VBP program began adjusting payments to providers

in October 2018. The VBP program withholds 2 percent of payments; of the withheld amount, 60 percent will be returned to providers as incentive payments and 40 percent will be retained as program savings. On net, the program lowered net payments for the majority of SNFs (73 percent). These SNFs did not earn back some portion of the amount withheld, and about one-fifth of SNFs did not earn back any portion of the 2 percent withhold. For-profit facilities were overrepresented in the group of SNFs with the largest reduction. Net payments to over one-quarter of SNFs (27 percent) increased under the VBP; they earned back more than the 2 percent withheld. The largest increase (a net gain of 1.6 percent) was earned by 11 percent of SNFs, and for-profit facilities were underrepresented in this group.

In addition to the single VBP measure, CMS publicly reports SNF performance on six other measures. The three assessment-based measures are the share of patients with pressure ulcers that worsened, the share of patients experiencing one or more falls with major injury, and the share of patients with admission and discharge functional assessments and a care plan that addresses function. The three claims-based measures are the rate of successful discharges to the community (i.e., discharged to the community without deaths or unplanned readmissions within the 31 days after discharge), the rate of potentially preventable readmissions following discharge from the SNF, and Medicare spending per beneficiary. Since October 2018, providers that do not submit the necessary data to calculate the three assessment-based measures on

Measures of skilled nursing facility quality

To assess skilled nursing facility (SNF) quality, the Commission examines risk-adjusted rates of readmission to the hospital, discharge to the community, and change in functional status during the SNF stay for beneficiaries in fee-for-service (FFS) Medicare.

The community discharge measure includes beneficiaries discharged to a community setting (including assisted living) and excludes beneficiaries discharged to an inpatient setting (e.g., an acute care hospital or nursing home) within one day of the SNF discharge. The measure also excludes beneficiaries who die within 1 day of the SNF discharge and beneficiaries who are readmitted to an acute care hospital within 30 days of admission to the SNF (Kramer et al. 2015). Beneficiaries who are discharged to a nursing home are not counted as community discharges.¹²

The readmission measures count patients whose primary diagnosis for rehospitalization was considered potentially avoidable; that is, the development of the conditions leading to the hospital admission typically could have been managed with appropriate care to avoid the hospitalization. The potentially avoidable conditions include congestive heart failure, electrolyte imbalance/dehydration, respiratory infection, septicemia, urinary tract or kidney infection, hypoglycemia and diabetic complications, anticoagulant complications, fractures and

musculoskeletal injuries, acute delirium, adverse drug reactions, cellulitis/wound infection, pressure ulcers, and blood pressure management. The count excludes readmissions that were likely to have been planned (e.g., inpatient chemotherapy or radiation therapy) and readmissions that signal a premature discharge from the hospital. We separately measure readmissions that occur during the SNF stay and those that occur within 30 days of discharge from the SNF because they measure different aspects of care—care furnished by the SNF and the SNF handoff to the next setting (or home). We do not use CMS’s measure (readmissions that occur within 30 days of discharge from the hospital) because it conflates the two dimensions of care.

The observed readmission and community discharge rates were risk adjusted for medical comorbidity, cognitive comorbidity, mental health comorbidity, function, and clinical conditions (e.g., surgical wounds and shortness of breath). The rates reported are the average risk-adjusted readmission rates for all facilities with 25 or more stays (20 stays for the postdischarge readmission measure). Demographics (including race, gender, and age categories except younger than age 65 years) were not important in explaining differences in readmission and community discharge rates after controlling for beneficiaries’ comorbidities, mental illness, and functional status (Kramer et al. 2014).¹³

(continued next page)

at least 80 percent of assessments will have their update for that year reduced by 2 percentage points.

Measures of changes in functional status were essentially unchanged

Most SNF beneficiaries receive rehabilitation therapy, and the amount of therapy furnished to them has steadily increased over time. Yet patients vary considerably in their expected improvement during the SNF stay. Some patients are likely to improve in several ADLs during their

SNF stay, while others (such as those with chronic and degenerative diseases) may expect, at best, to maintain their function. We measure SNF performance on both aspects of patient function—improvement and no decline (see text box on SNF quality measures). The risk-adjusted rates consider the likelihood that a patient’s functionality will change, given the functional ability at admission. However, given the evidence in HHAs and IRFs that the reporting of functional status may be influenced by financial considerations, the Commission is increasingly

Measures of skilled nursing facility quality (cont.)

Two risk-adjusted measures of functional change are used to gauge the share of a facility's stays during which patients' function improves (the rate of improvement in one, two, or three mobility measures—bed mobility, transfer, and ambulation) and the share of stays during which patients' functioning does not decline (including stays with improvement and stays with no change), given the prognosis of the facility's patients. Change is measured by comparing initial and discharge assessments. For patients who go on to use long-term nursing home care, the assessment closest to the end of Medicare coverage is used as long as it is within 30 days of the end of the SNF stay. Although the initial assessment often occurs toward the end of the first week of the stay, the Minimum Data Set information pertains to the number of times over the past week that assistance was provided rather than the recorded functional status at a single point in time. Therefore, measurement error due to the reliance on an assessment conducted at the end of the first week of the stay is unlikely and would not affect our ability

to examine quality trends over time, unless providers changed during the week the initial assessments were conducted.

The initial assessment conducted during each stay is used to assign the patient to 1 of 22 case-mix groups using 3 measures of mobility—bed mobility, transfer, and ambulation (Kramer et al. 2014). This classification system acts as a form of risk adjustment, differentiating patients based on their expected ability to perform the three mobility-related activities of daily living (ADLs). A patient's prognosis is measured using the patient's ability to eat and dress because these two ADLs encompass cognitive functioning and other dimensions of physical functioning that facilitate rehabilitation.

Risk-adjusted rates compare a facility's observed rates with its expected rates ((actual rate / expected rate) × the national average rate) based on the mix of patients across functional outcome groups. Each facility-level measure combines the functional status information for the three mobility measures. ■

wary of the accuracy of the provider-reported functional assessments because the data are generally obtained by observing the patient and are somewhat subjective. The Commission has work underway to examine the accuracy of these data.

The average risk-adjusted rates of functional change—rate of improvement in one, two, or three mobility ADLs (bed mobility, transfer, and ambulation) and the rate of no decline in mobility—were essentially unchanged between 2011 and 2017 (Table 8-4, p. 206). In 2017, 43.9 percent of stays had improvement in mobility, and 87 percent of stays had no decline in mobility. So, even though the program paid for more therapy over this period (the share of days assigned to the highest rehabilitation case-mix groups increased), the average functional status of beneficiaries did not improve.

Large variation in quality measures indicates considerable room for improvement

Considerable variation exists across the industry in performance on the quality measures we track. We

found one-quarter of facilities in 2017 had risk-adjusted community discharge rates at or below 31.9 percent, whereas the best performing quarter of facilities had rates of 49.1 percent or higher (Table 8-5, p. 207). Similar variation was seen in readmissions during the SNF stay: The worst performing quartile had rates at or above 13.6 percent, whereas the best quartile had rates at or below 7.8 percent. Finally, rates of readmission in the 30 days after discharge from the SNF varied most—a twofold difference between the 25th percentile and the 75th percentile. The amount of variation across and within the groups suggests considerable room for improvement, all else being equal. There was less variation in the mobility measures, particularly the measure detecting no decline in mobility. The relatively high and fairly uniform rates could indicate that most SNFs are able to prevent declines for most beneficiaries.

Consistent with prior years, in 2017, nonprofit SNFs had higher rates of community discharges and fewer

**TABLE
8-4****Mean risk-adjusted functional outcomes in SNFs
were essentially unchanged between 2011 and 2017**

Composite measure	2011	2013	2015	2016	2017
Rate of improvement in one or more mobility ADLs	43.6%	43.7%	43.6%	43.6%	43.9%
Rate of no decline in mobility	87.2	87.1	87.1	87.2	87.0

Note: SNF (skilled nursing facility), ADL (activity of daily living). The three mobility ADLs include bed mobility, transfer, and ambulation. The rate of mobility improvement refers to the average rates of improvement in bed mobility, transfer, and ambulation, weighted by the number of stays included in each measure. Stays with improvement in one, two, or three of these ADLs are counted in the improvement measure. The rate of stays with no decline in mobility is the share of stays with no decline in any of the three mobility ADLs. Rates are the mean of facility rates and are calculated for all facilities with 25 or more stays.

Source: Analysis of fiscal year 2011 through fiscal year 2017 Minimum Data Set data.

readmissions (that is, better rates) during the SNF stay than for-profit facilities. Nonprofit SNFs on average had community discharge rates that were 10 percent higher and during-stay readmission rates that were 15 percent lower than for-profit facilities. The rates for readmissions during the 30 days after discharge were similar on average.

We also found differences in the performance of hospital-based and freestanding SNFs in 2017. Compared with freestanding facilities, hospital-based SNFs had, on average, higher rates of discharge to the community (18 percent higher) and lower during-stay readmission rates (27 percent lower). The average readmission rate during the 30 days after discharge was higher for hospital-based SNFs compared with freestanding facilities, indicating an opportunity for hospitals to improve their discharge planning, the handoffs of these beneficiaries to the next setting or home, and the quality of the providers to which they refer beneficiaries.

Medicare is increasingly focused on measuring the value of the care it purchases. In addition to implementing a VBP program in October 2018, CMS has improved the Nursing Home Compare website, a Medicare website that displays comparative information about SNFs and nursing homes to help beneficiaries select a provider. CMS expanded the number of short-stay quality measures reported in Nursing Home Compare to include measures that reflect the key goals of this post-acute care. The short-stay measures include improvement in function, readmissions, discharge to the community, patient experience with pain, presence of new or worse pressure ulcers, vaccination rates, and use of antipsychotic medications.

Providers' access to capital was adequate in 2018

The vast majority of SNFs operate within nursing homes; therefore, in assessing SNFs' access to capital, we look at the availability of capital for nursing homes. Medicare makes up a minority share of almost all facilities' revenues.

Access to capital was adequate in 2018 and is expected to remain so in 2019 (Kaufman 2018). Many investors and lenders remain optimistic about this sector because of its relatively low costs compared with other institutional PAC providers and the long-term demographics that will fuel demand. Capital markets are reported to be "robust," with "tremendous investor demand," even though facilities' total margins are low and occupancy rates have declined in recent years (Connole 2018, Flynn 2018). Improved state economies have also stabilized Medicaid payments for the long-term care portion of providers' businesses.

The Department of Housing and Urban Development (HUD) continues to be an important lending source. In fiscal year 2018, HUD financed 317 projects, with the insured amount totaling \$3.6 billion, a 6 percent increase from 2017 (Department of Housing and Urban Development 2018). During fiscal year 2018, both the number and size of the loans increased. Refinancing, rather than new construction or renovation, continues to make up most of HUD loans. HUD plays a smaller lending role than it has previously because low-cost borrowing and widely available capital sources have made it only one of many alternative lenders.

**TABLE
8-5****SNF quality measures varied considerably across SNFs, 2017**

Quality measure	Risk-adjusted rates			
	Mean	25th percentile	75th percentile	Ratio of 75th to 25th percentile
Discharged to the community	40.0%	31.9%	49.1%	1.5
Average mobility improvement across the three mobility ADLs during the SNF stay	43.9	35.8	52.0	1.5
Rate of no decline in mobility during SNF stay	87.0	82.5	92.6	1.1
Potentially avoidable readmissions during SNF stay	10.9	7.8	13.6	1.7
Potentially avoidable readmissions within 30 days after discharge from SNF	6.1	3.9	7.8	2.0

Note: SNF (skilled nursing facility), ADL (activity of daily living). Higher rates of discharge to community indicate better quality. Higher readmission rates indicate worse quality. "Mobility improvement" is the average of the rates of improvement in bed mobility, transfer, and ambulation, weighted by the number of stays included in each measure. "No decline in mobility" is the share of stays with no decline in any of the three mobility ADLs. Rates are the average of facility rates and are calculated for all facilities with 25 or more stays, except the rates of potentially avoidable readmissions during the 30 days after discharge, which are reported for all facilities with 20 or more stays.

Source: Analysis of fiscal year 2017 Minimum Data Set and inpatient acute hospital data.

Yet some lenders and investors are wary of this setting. Total margins for nursing homes across all lines of business and all patients are modest and have ranged between 0.6 percent and 3.8 percent since 2001. Because a "total margin" includes the mostly Medicaid-funded long-term care (the nursing home portion of the business), the overall financial performance of this setting is heavily influenced by state policies regarding the level of Medicaid payments and the ease of entry into a market (e.g., whether there is a requirement for a certificate of need). The aggregate total margin for freestanding SNFs in 2017 remained positive (0.5 percent), slightly lower than the total margin in 2016 (0.7 percent).

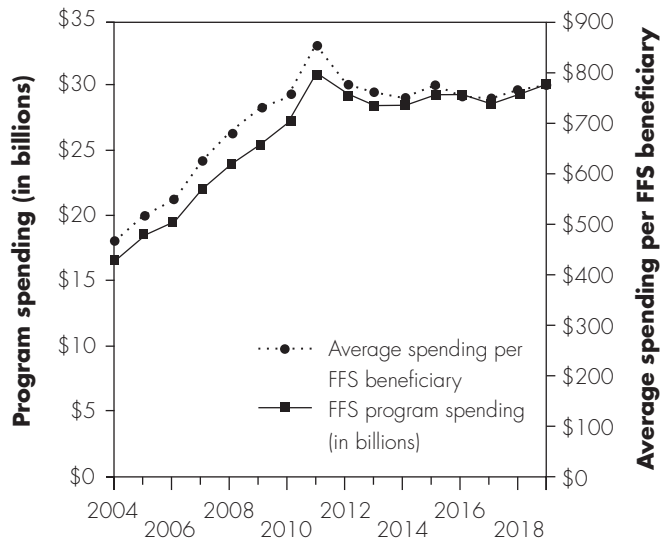
Some investors eye the slim total margins, declining occupancy rates, and increasing share of revenues from payers with lower rates and opt to pare back their investments or avoid the sector altogether. Reflecting these trends, the average price per bed decreased 18 percent between 2016 and 2017 (to \$81,350), though it remains the third highest price ever (Irving Levin Associates Inc. 2018). However, reluctance to invest in this setting does not reflect the adequacy of Medicare's FFS SNF payments: Medicare remains a preferred payer.

As some of the larger national players (such as Kindred Healthcare and Sabra Healthcare REIT) exited or pared back their investments in the sector, smaller regional investors picked up the offerings, assisted by widely available capital. Although small regional operators are less able to spread their financial risks across diverse locations, they have greater familiarity with the local markets, referral patterns from hospitals, and individual facility performance that may offer them a competitive advantage (Spanko 2018). In contrast to reluctant lenders, these investors view the industry as remarkably stable, having the advantage of demographic trends and being a lower cost alternative to other institutional PAC.

The nursing home industry is increasingly dividing into providers that can expand their service lines and successfully participate in alternative payment models and providers that cannot. The transition from FFS to alternative payment models (including ACOs and bundled payments) and VBP will require SNFs to achieve good outcomes and communicate that performance to potential partners (hospitals and health systems) to secure volume. Some facilities have started to develop and market their "niche" clinical capabilities to hospitals, aiming to care for patients with special care needs, such as patients

**FIGURE
8-1**

After declining in 2017, FFS program spending on SNF services is expected to increase in 2018 and 2019



Note: SNF (skilled nursing facility), FFS (fee-for-service). Fiscal year spending is shown. Data for 2018 and 2019 are estimates.

Source: Office of the Actuary 2018b.

on ventilators or dialysis, those requiring dementia or wound care, or those with respiratory or heart conditions. The revised PPS that CMS plans to implement will also exert pressure on providers to develop skilled nursing capabilities if they do not already have them. Some observers note that some small solo operators will opt to sell rather than transition to a new model of care, which will likely result in more consolidation in the industry.

Because Medicaid payments are lower than Medicare FFS payments, some representatives in the industry argue that high Medicare payments are needed to subsidize losses on Medicaid residents. The Commission does not support this policy for several reasons (see text box on not subsidizing other payments). It should be noted that while Medicare's payments are higher than Medicaid's, the programs pay for different levels of care. Medicare pays for skilled services after a hospitalization; Medicaid covers long-term care. Differences in the level of care are captured by the relative weights for the average Medicare beneficiary and Medicaid resident. The average therapy relative weight for

a Medicare-covered beneficiary was nine times higher than the relative weight for a Medicaid-covered resident (White and Zheng 2018). The average nursing relative weight was 40 percent higher for a Medicare-covered beneficiary compared with a Medicaid-covered resident.

Medicare payments and providers' costs: Medicare margins remained high in 2017

In 2017, the aggregate Medicare margin for freestanding SNFs was 11.2 percent. Margins for individual facilities continue to vary depending on the facility's share of intensive therapy days, size, and cost per day. High-margin SNFs had higher shares of intensive therapy days and lower average costs per day compared with low-margin SNFs. Differences by ownership were considerable, with for-profit facilities having much higher Medicare margins than nonprofit facilities. The 987 freestanding facilities defined as relatively efficient—providers with consistently low costs and higher quality care, in relative terms—had Medicare margins of 18 percent, indicating Medicare overpays freestanding facilities for this care. Some MA plans' payment rates were considerably lower than Medicare's FFS payment rates, and the disparity is unlikely to be explained by differences in patient mix.

Trends in FFS spending and cost growth

In fiscal year 2017, Medicare FFS spending for SNF services was \$28.4 billion, about 1 percent lower than in 2016 (Figure 8-1) (Office of the Actuary 2018b). Between 2004 and 2010, the average increase in program spending was over 8 percent a year. In 2011, program spending was unusually high because rates for the new case-mix classification system included an adjustment that was too large for the mix of therapy modalities (i.e., individual versus group or concurrent) assumed in setting the rates. The industry took advantage of the new policies by quickly shifting its mix of modalities, and spending increased by over 14 percent in 2011. To correct for the excessive payment, CMS revised the adjustment downward in 2012, and total payments declined almost 8 percent in 2012. Although there was no significant overall change in program spending, annual changes have been highly variable, ranging from a 4.5 percent increase in 2015 to a 2.8 decrease in 2016. On a per FFS beneficiary basis, spending in 2017 (\$743) was slightly lower (–0.4 percent) than in 2016. The Office of the Actuary estimates that FFS spending has increased in 2018 and will further increase to \$29.9 billion in 2019.

Medicare's skilled nursing facility payments should not subsidize payments from Medicaid or other payers

Medicare payments, which are financed by taxpayer contributions to the Part A Trust Fund, effectively subsidize payments from other payers, most notably Medicaid. High Medicare payments may also subsidize payments from private payers. Industry representatives contend that this subsidization should continue. The Commission believes such cross-subsidization is poor policy for several reasons. First, it results in poorly targeted subsidies. Facilities with high shares of Medicare beneficiary days receive the most in subsidies from higher Medicare payments, while facilities with low shares of Medicare beneficiary days—presumably the facilities with the greatest financial need—receive the smallest subsidies.

In addition, Medicare's subsidization does not differentiate among states with relatively high and low Medicaid payments. If Medicare raises or maintains its high payment levels, states could be encouraged to further reduce their Medicaid payments and, in turn, create pressure to raise Medicare rates even more. Higher Medicare payments could also further encourage providers to select patients based on payer source or rehospitalize dual-eligible patients to qualify them for a Medicare-covered, higher payment stay. Finally, Medicare's high payments represent a subsidy from trust fund dollars (and taxpayer support) of the low payments made by states and private payers. If the Congress wishes to financially support certain nursing facilities (such as those with high Medicaid shares) efficiently, it could do so through a separate, targeted policy. ■

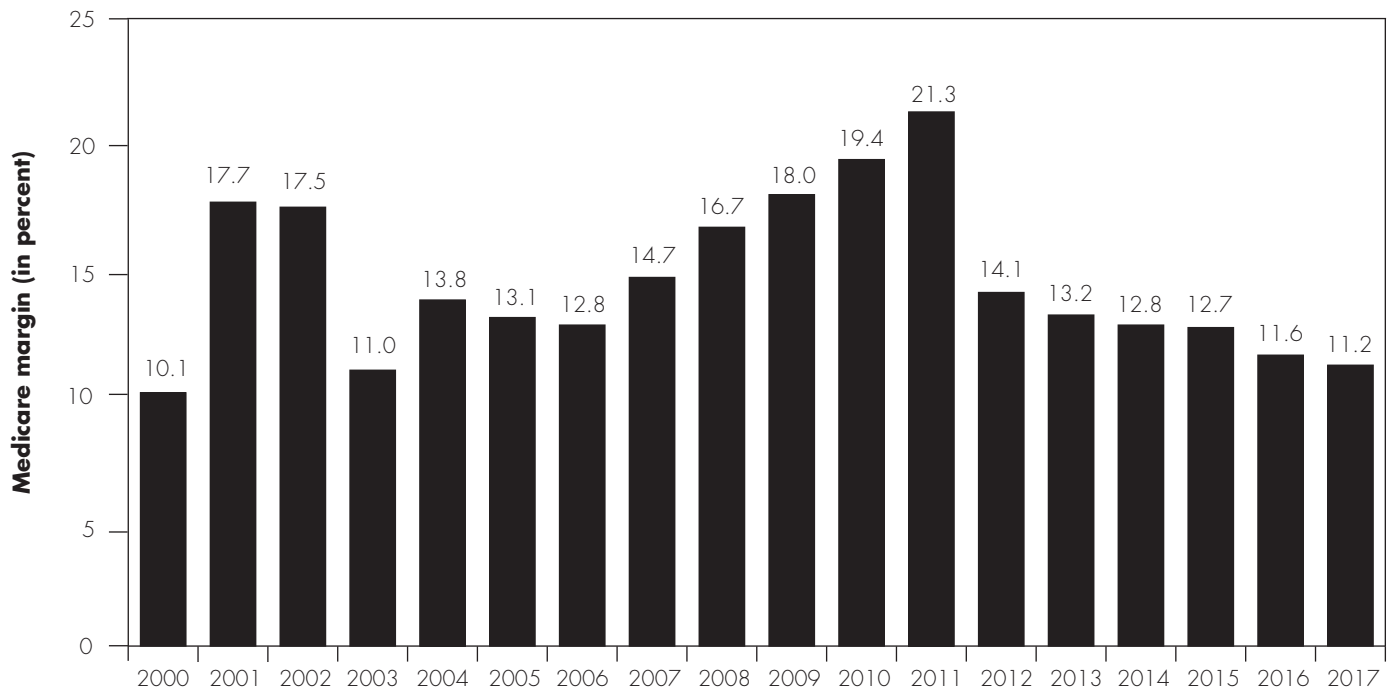
Between 2016 and 2017, SNFs kept the growth in the average cost per day below the market basket (2.3 percent compared with the market update of 2.7 percent). Costs increased more quickly for nonprofit SNFs compared with for-profit SNFs (3.0 percent compared with 2.2 percent, respectively). Cumulatively since 2012, the industry kept the growth in the average cost per day below the market basket (11.1 percent compared with the market basket of 12.3 percent). Over the same period, nonprofit SNFs had higher cost growth compared with for-profit SNFs (14.7 percent for nonprofit facilities compared with 10.1 percent for for-profit SNFs). In addition to higher cost growth, nonprofit facilities had average costs per day in 2017 that were about 10 percent higher than the cost per day in for-profit facilities. Differences in the level of cost per day by ownership have grown over time.

SNF Medicare margins remain high

The Medicare margin is a key measure of the adequacy of the program's payments because it compares Medicare's FFS payments with providers' costs to treat FFS beneficiaries. In 2017, the aggregate Medicare margin for

freestanding SNFs was 11.2 percent, the 18th consecutive year of Medicare margins above 10 percent (Figure 8-2, p. 210). Medicare margins declined slightly because, although SNFs kept their cost growth below the update to payments, the sequester has lowered payments by 2 percent each year since April 2013. SNFs have countered this reduction to the payment rate by keeping their cost growth low and assigning days to higher payment case-mix groups.

In 2017, hospital-based facilities (3 percent of program spending on SNFs) continued to have extremely negative Medicare margins (–68 percent), in part because of the higher cost per day reported by hospitals. Previous analysis by the Commission found that routine costs in hospital-based SNFs were higher, reflecting more staffing, higher skilled staffing, and shorter stays (over which to allocate costs) (Medicare Payment Advisory Commission 2007). However, hospital administrators consider their SNF units in the context of the hospital's overall financial performance and mission. Hospitals with SNFs can lower their inpatient lengths of stay by transferring patients to their SNF beds, thus making inpatient beds available to

**FIGURE
8-2****Aggregate freestanding SNF Medicare margins have been above 10 percent since 2000**

Note: SNF (skilled nursing facility). Medicare margin is calculated as the sum of Medicare payments minus the sum of Medicare's costs, divided by Medicare payments.

Source: MedPAC analysis of freestanding SNF cost reports, 2000–2017.

treat additional inpatient admissions. As a result, hospital-based SNFs can contribute to the bottom-line financial performance of hospitals: Hospitals with SNFs had lower inpatient costs per case and higher inpatient Medicare margins than hospitals without SNFs.

High and widely varying SNF Medicare margins indicate PPS reforms are still needed

The persistently high Medicare margins and their wide variation indicate that the PPS needs to be revised and rebased so that payments more closely match patient characteristics, not the services provided to them. In 2017, one-quarter of freestanding SNFs had Medicare margins of 20.2 percent or higher, while another quarter of freestanding SNFs had margins of 0.8 percent or lower (Table 8-6). Providers' case mix played a key role in shaping Medicare margins. In 2017, facilities with high shares of intensive therapy days had Medicare margins

that averaged 9 percentage points higher than facilities with low shares of these days (13.1 percent compared with 4.1 percent, respectively).

Medicare margins also reflect the economies of scale that larger SNFs are able to achieve. Small (25–50 beds) and low-volume facilities (bottom quintile of total facility days) had low average Medicare margins (–0.3 percent and 0.6 percent, respectively) compared with large and high-volume facilities (12.6 percent and 13.4 percent, respectively). SNFs with the lowest cost per day (SNFs in the bottom 25th percentile) had an average Medicare margin of 22.8 percent compared with 0.3 percent for SNFs with the highest cost per day (the top 25th percentile).

Since 2006, for-profit facilities' Medicare margins have averaged about 10 percentage points higher than nonprofit facilities' margins. Nonprofit facilities had an average

Medicare margin of 1.7 percent, while the average margin for for-profit SNFs was 13.7 percent. The disparity reflects differences in facilities' mix of patients, costs, size, and service provision. Nonprofit facilities tend to have higher costs per day (about 10 percent higher) and, since 2011, have had higher cost growth compared with for-profit facilities. The higher costs for nonprofit facilities partly reflect their smaller size. In 2015, the median nonprofit facility had 85 beds compared with 103 beds for the median for-profit facility, suggesting that the nonprofits may not be able to achieve the same economies of scale as larger facilities. As for revenues, nonprofits had somewhat lower shares of the more profitable ultra-high and very high therapy days compared with for-profit facilities (82 percent compared with 84 percent, respectively) and shorter stays, both lowering revenue.

The highest margin freestanding SNFs (those in the top quartile of the distribution of Medicare margins) appear to pursue both cost and revenue strategies (Table 8-7, p. 212). Compared with lower margin SNFs (those in the bottom quartile), high-margin SNFs had considerably lower daily total, routine, and ancillary costs and lower cost per discharge. Economies of scale play a role; high-margin SNFs were larger on average, with a higher occupancy rate, than lower margin facilities. Somewhat surprisingly, high-margin facilities had larger shares of dual-eligible beneficiaries, minority beneficiaries, and Medicaid days. It is possible that, given their larger Medicaid mix (and the lower payments typically made by Medicaid), these facilities keep their costs lower, which contributes to their higher Medicare margins.

On the revenue side, high-margin SNFs had revenues per day that were 15 percent higher, driven in part by having larger shares of intensive therapy days and, to a smaller extent, a lower mix of medically complex days. The differences in financial performance based on a provider's case mix illustrate the need to revise the PPS, such as using the design proposed by CMS. Differences in payments per discharge between high- and low-margin SNFs were even larger (43 percent higher) because of the longer lengths of stay.

Ownership of low-margin and high-margin facilities did not mirror the industry mix. Although for-profit facilities made up 71 percent of freestanding SNFs in 2017, they constituted a smaller share (57 percent) of the low-margin facilities and a higher share (86 percent) of the high-margin group. Similarly, high-margin SNFs were

**TABLE
8-6**

Variation in freestanding SNF Medicare margins reflects the mix of cases and cost per day, 2017

Provider group	Medicare margin
All providers	11.2%
For profit	13.7
Nonprofit	1.7
Rural	9.7
Urban	11.5
Frontier	3.8
25th percentile of Medicare margins	0.8
75th percentile of Medicare margins	20.2
Intensive therapy: High share of days	13.1
Intensive therapy: Low share of days	4.1
Medically complex: High share of days	9.0
Medically complex: Low share of days	12.1
Small (20–50 beds)	–0.3
Large (100–199 beds)	12.6
Cost per day: High	0.3
Cost per day: Low	22.8
Cost per discharge: High	9.6
Cost per discharge: Low	12.2
Facility volume: Highest fifth	13.4
Facility volume: Lowest fifth	0.6

Note: SNF (skilled nursing facility). The margins are aggregates for the facilities included in the group. "Intensive therapy" days are those classified in the ultra-high and very high rehabilitation case-mix groups. "Low" is defined as facilities in the lowest 25th percentile; "high" is defined as facilities in the highest 25th percentile. "Frontier" refers to SNFs located in counties with six or fewer people per square mile. Facility volume includes all facility days.

Source: MedPAC analysis of 2017 freestanding SNF Medicare cost reports.

disproportionately urban, accounting for 79 percent of this group even though they make up a smaller share of freestanding SNFs (73 percent).

Relatively efficient SNFs illustrate Medicare's payments are too high

The Commission is required by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 to consider the costs associated with efficient providers. The

**TABLE
8-7****Cost and revenue differences explain variation in Medicare margins for freestanding SNFs in 2017**

Characteristic	SNFs in the top margin quartile	SNFs in the bottom margin quartile	Ratio of SNFs in the top margin quartile to SNFs in the bottom margin quartile
Cost measures			
Standardized cost per day	\$271	\$399	0.68
Standardized ancillary cost per day	\$117	\$167	0.70
Standardized routine cost per day	\$152	\$224	0.68
Standardized cost per discharge	\$11,285	\$14,116	0.80
Average daily census (patients)	87	65	1.35
Occupancy rate (in percent)	86%	84%	1.02
Revenue measures			
Medicare payment per day	\$522	\$452	1.15
Medicare payment per discharge	\$22,470	\$15,714	1.43
Medicare length of stay (days)	42	35	1.21
Share of days in intensive therapy	88%	80%	1.10
Share of medically complex days	3%	4%	0.75
Medicare share of facility revenue	23%	13%	1.77
Medicaid share of days	66%	57%	1.16
Patient characteristics			
Case-mix index	1.41	1.32	1.07
Share dual-eligible beneficiaries	39%	26%	1.50
Share minority beneficiaries	14%	5%	2.80
Share very old beneficiaries	30%	35%	0.86
Facility mix			
Share for profit	86%	57%	N/A
Share urban	79%	70%	N/A

Note: SNF (skilled nursing facility), N/A (not applicable). Values shown are medians for the quartile. Top margin quartile SNFs ($n=3,284$) were in the top 25 percent of the distribution of Medicare margins. Bottom margin quartile SNFs ($n=3,283$) were in the bottom 25 percent of the distribution of Medicare margins. "Standardized cost" refers to Medicare costs adjusted for differences in area wages and the case mix (using the nursing component's relative weights) of Medicare beneficiaries. "Intensive therapy" days are days classified in ultra-high and very high rehabilitation case-mix groups. "Medically complex" includes days assigned to clinically complex and special care case-mix groups. "Very old beneficiaries" are 85 years and older. Figures in the first two columns are rounded, but ratios were calculated on unrounded data.

Source: MedPAC analysis of freestanding 2017 SNF cost reports and claims.

analysis informs the Commission's update discussion by examining the adequacy of payments for those providers that perform relatively well on cost and quality measures.

The Commission follows two principles when selecting a set of efficient providers. First, the providers must do relatively well on both cost and quality metrics (see text box on identifying relatively efficient SNFs, p. 214).

Second, performance has to be consistent, meaning that the provider cannot have poor performance on any metric in any of three consecutive years preceding the year under evaluation. The Commission's approach is to develop a set of criteria and then examine how many providers meet them. It does not establish a set share (for example, 10 percent) of providers to be considered efficient and then define criteria to meet that pool size.

**TABLE
8-8****Financial performance of relatively efficient freestanding SNFs is a combination of lower cost per day and higher revenues per day**

Performance in 2017	Type of SNF		Ratio of relatively efficient to other SNFs
	Relatively efficient	Other SNFs	
Community discharge rate	50.3%	39.8%	1.27
Readmission rate	9.0%	10.9%	0.83
Standardized cost per day	\$297	\$324	0.92
Standardized cost per discharge	\$8,948	\$12,310	0.73
Medicare revenue per day	\$526	\$476	1.11
Medicare margin	18.0%	10.5%	1.71
Total margin	2.3%	0.6%	3.61
Facility case-mix index	1.44	1.36	1.06
Medicare average length of stay	30 days	38 days	0.79
Occupancy rate	87%	85%	1.03
Average daily census	100	79	1.27
Share ultra-high therapy days	66%	55%	1.21
Share medically complex days	4.2%	3.8%	1.09
Medicaid share of facility days	58%	63%	0.93
Share urban	84%	67%	N/A
Share for profit	79%	68%	N/A
Share nonprofit	15%	21%	N/A

Note: SNF (skilled nursing facility), N/A (not applicable). The number of facilities included in the analysis was 11,462. SNFs were identified as “relatively efficient” based on their cost per day and two quality measures (community discharge and readmission rates) between 2014 and 2016; their performance was evaluated in 2017 and is displayed in the table. Relatively efficient SNFs were those in the best third of the distribution for one measure and not in the worst third for any measure in each of three years and were not a facility under “special focus” by CMS. Costs per day and per discharge were standardized for differences in case mix (using the nursing component relative weights) and wages. Quality measures were rates of risk-adjusted community discharge and readmission during the SNF stay for patients with potentially avoidable conditions. Quality measures were calculated for all facilities with at least 25 stays. “Ultra-high therapy days” includes days assigned to ultra-high case-mix groups. “Medically complex days” includes days assigned to clinically complex and special care case-mix groups. Table shows the medians for the measure. Figures in the first two columns are rounded, but ratios were calculated on unrounded data.

Source: MedPAC analysis of quality measures and Medicare cost report data for 2014–2017.

To identify efficient SNFs, we examined the financial performance of freestanding SNFs with consistent cost and quality performance. To measure costs, we looked at costs per day that were adjusted for differences in area wages and case mix. The quality measures were risk-adjusted rates of community discharge and potentially avoidable readmissions during the SNF stay.

Our analyses found that many SNFs (987) had relatively low costs and provided relatively good quality care. Compared with other SNFs in 2017, relatively efficient

SNFs had community discharge rates that were 27 percent higher and readmission rates that were 17 percent lower (Table 8-8). Standardized costs per day were 8 percent lower than for other SNFs. The aggregate Medicare margin for efficient SNFs was high (18 percent), indicating that although these providers were relatively low cost and achieved relatively high quality, the program could get better value for its purchase if its payments were lower. The high margin for these providers underscores the need for the program to lower its payments to more closely align them with the costs of care.

Identifying relatively efficient skilled nursing facilities

We defined relatively efficient skilled nursing facilities (SNFs) as those with relatively low costs per day and good quality of care for three years in a row, 2014 through 2016. The cost per day was calculated using cost report data and was adjusted for differences in case mix (using the nursing component relative weights) and area wages. To assess quality, we examined risk-adjusted rates of community discharge and potentially avoidable readmissions that occurred during the SNF stay. Only facilities with at least 25 stays were included in the quality measures. To be included in the relatively efficient group, a SNF had to be in the best third of the distribution of at least one measure and not in the bottom third on any measure for three consecutive years. Another criterion was that SNFs not be part of CMS's Special Focus Facility Initiative for any portion of time covered by the definition (2014 through 2016), which excluded five facilities from the pool of efficient providers.¹⁴

We found that almost 9 percent (987 of the 11,462 facilities that had all of the data items required for this

analysis) provided relatively low-cost, high-quality care—17 more facilities than last year. Less than half (44 percent) were identified as efficient last year. Relatively efficient facilities were more likely to be urban and for profit. Efficient SNFs were located in 44 states, including 2 in frontier locations.

The method we used to assess performance attempts to limit incorrect conclusions about performance based on poor data. Using three years to categorize SNFs as efficient (rather than just one year) avoids categorizing providers based on random variation or on one “unusual” year. In addition, by first assigning a SNF to a group and then examining the group's performance in the next year, we avoided having a facility's poor data affect both its own categorization and the assessment of the group's performance. Thus, a SNF's erroneous data could result in its inaccurate assignment to a group, but because the group's performance is assessed with data from later years, these “bad” data would not directly affect the assessment of the group's performance. ■

Similar to high-margin SNFs, efficient SNFs appear to pursue cost and revenue strategies. On the cost side, efficient SNFs achieved greater economies of scale, with a higher daily census compared with other facilities (100 compared with 79, respectively) and slightly higher occupancy rates. Since the efficient providers were also higher quality, their volume could reflect their success in attracting admissions. On the revenue side, efficient providers had higher shares of the most intensive therapy days that raised their daily Medicare payments relative to all SNFs. They also had lower Medicaid shares, which improved their total financial performance; efficient providers' total margin was 2.3 percent compared with 0.6 percent for other SNFs. Efficient facilities had more complex case mixes (driven in part by higher therapy intensity) and much shorter stays.

FFS payments for SNF care are considerably higher than MA payments for three publicly traded nursing home companies

Another indicator that Medicare's payments under the SNF PPS are too high is the comparison of FFS and MA

payments. (We use “MA” as shorthand for all managed care payments since MA makes up the majority of rates reported as “managed care payments.”) We compared Medicare FFS and MA payments at three nursing home companies for which such information was publicly available. For these companies, Medicare's FFS payments averaged 21 percent higher than MA rates (Table 8-9). We do not know whether the lower average daily payment reflects differences in service intensity (for example, fewer intensive therapy days), lower payments for the same service, or some combination. We also do not know how these rates compare with rates paid to smaller chains and independent facilities. It is possible that smaller companies have less leverage and do not negotiate similarly low rates. However, similar differences in payments were reported by the National Investment Center for Seniors Housing & Care, a nonprofit organization that supports access and choice for seniors' housing and care, including nursing homes and assisted living. It found that for the 1,449 SNF properties included in its sample, FFS payments

**TABLE
8-9****Comparison of Medicare fee-for-service and managed care daily payments in 2018 to three companies**

Company	Medicare payment		Ratio of FFS to MA payment
	FFS	Managed care (MA)	
Diversicare	\$455	\$397	1.15
Ensign Group	616	462	1.33
Genesis HealthCare	525	458	1.15

Note: FFS (fee-for-service), MA (Medicare Advantage). MA makes up the majority of managed care payments. The Genesis rate is reported as “insurance,” which includes managed care but excludes Medicaid managed care and private pay.

Source: Third quarter 10-Q 2018 reports available at each company’s website.

per day were 21 percent higher than MA rates (National Investment Center for Seniors Housing & Care 2018).

We compared the patient characteristics of beneficiaries enrolled in FFS and MA plans in 2017 and found the differences are unlikely to explain the magnitude of the differences between FFS payments and payments typically made by MA plans.¹⁵ Compared with FFS beneficiaries, MA enrollees were about the same age, had slightly higher Barthel scores (about two points, indicating slightly more independence), and had lower risk scores (5 percent lower, indicating fewer comorbidities). The considerably lower MA payments indicate that some facilities accept much lower payments to treat MA enrollees who may not be much different in terms of case mix from FFS beneficiaries. Some publicly traded firms report seeking managed care patients as a business strategy, indicating that the MA rates are attractive.

Payments and costs for 2019

To project the aggregate Medicare margin for 2019, the Commission considers the relationship between SNF costs and Medicare payments in 2017 as a starting point. To estimate costs for 2018 and 2019, we assumed a cost growth equal to the average for the past five years (slightly below market basket) and no behavioral changes. To estimate 2018 payments, we assumed payments in 2018 would increase by 1.0 percent, as required by the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). For 2019, we assumed payments would increase by 2.4

percent, as required by the Balanced Budget Act of 2018. We also reduced 2019 payments by the portion of the VBP withhold that will be retained as program savings.

The projected Medicare margin for 2019 is 10 percent. The margin is expected to be lower than the 2017 margin because of the MACRA-mandated update in 2018 and program savings from VBP that will lower revenues in 2019.

How should Medicare payments change in 2020?

In considering how payments should change for 2020, we note that costs are estimated to increase 3.1 percent that year. The update to payments is estimated to be lower than 3.1 percent because productivity adjustments will lower the update by an estimated 0.5 percent, for a net update of 2.6 percent. The change in Medicare margins will depend on whether cost growth exceeds the growth in payments on a case-mix-adjusted basis.

In fiscal year 2020, CMS plans to make substantial changes to the SNF PPS. The Commission has called for a revised PPS since 2008 and urges the Secretary to proceed with the redesign. While CMS estimated the redesign to be budget neutral, provider responses to the new PPS may alter program spending and facilities’ cost structures and mix of cases. Thus, behavioral responses will dictate

whether rebasing and recalibration will be needed to keep payments aligned with the cost of care.

Regarding the level of payments, indicators of the adequacy of Medicare's payments are positive. The aggregate Medicare margin for SNFs has been above 10 percent since 2000 and is projected to be 10 percent in 2019. In 2017, the marginal profit was 19.1 percent, indicating facilities with an available bed have an incentive to admit Medicare patients. Relatively efficient SNFs had a median Medicare margin of 18 percent, further evidence that the level of payments is too high relative to the cost of care. Furthermore, FFS payments were considerably higher than the MA payments made to some SNFs, suggesting that some facilities are willing to accept much lower rates than FFS payments to treat Medicare beneficiaries. These factors show that the PPS continues to exert too little pressure on providers.

RECOMMENDATION 8-1

The Secretary should proceed to revise the skilled nursing facility prospective payment system in fiscal year 2020 and should annually recalibrate the relative weights of the case-mix groups to maintain alignment of payments and costs.

RATIONALE 8-1

After proposing to revise the SNF PPS and postponing the implementation, CMS refined its design and appears poised to implement a revised PPS in October 2019. The revisions will increase the equity in payments for different types of stays, increasing payments for medically complex stays and decreasing payments for stays that include intensive therapy unrelated to a patient's care needs. While the redesign would narrow the disparities in financial performance that result from the mix of cases facilities treat and therapy practices, it would not, and should not, address disparities that result from providers' inefficiencies.

The recommendation also calls for the Secretary to annually recalibrate the relative weights of the case-mix groups. The redesign may encourage many SNFs to change their mix of cases and their cost structures and thereby shift the relative costs of days assigned to the case-mix groups. To keep payments aligned with the cost of care for all types of days, CMS should recalibrate the relative weights of the case-mix groups on a regular schedule. Recalibration is administratively straightforward

and should become part of CMS's annual upkeep of the SNF PPS, just as it is part of the annual updates made to acute care hospitals.

As CMS noted in its final rule for updating rates for fiscal year 2019, the redesigned SNF PPS and the unified PAC PPS establish similar incentives for providers. SNFs will gain valuable experience under the revised SNF PPS that will ready them for an eventual transition to a PAC PPS.

IMPLICATIONS 8-1

Spending

- Relative to current law, this recommendation would not change program spending. The recommendation is budget neutral to the current level of spending.

Beneficiary and provider

- A redesigned PPS and an annual recalibration of the relative weights would increase the equity of Medicare's payments for all beneficiaries, thereby helping to ensure access for all beneficiaries, including those with medically complex conditions and those with high NTA costs. We do not expect the recommendation to affect providers' willingness or ability to care for Medicare beneficiaries.

RECOMMENDATION 8-2

The Congress should eliminate the fiscal year 2020 update to the Medicare base payment rates for skilled nursing facilities.

RATIONALE 8-2

Current law will increase base payments by a projected 2.6 percent (the market basket net of productivity) in fiscal year 2020. The aggregate Medicare margin in 2017 was 11.2 percent, indicating that the current level of Medicare's payment rates is more than adequate to accommodate cost growth and provide care to Medicare beneficiaries without an update to the base rate.

While the level of Medicare's payments indicates that a reduction to payments (i.e., not simply maintaining payment rates at current levels) is needed to align aggregate payments to aggregate costs, we expect the SNF industry to undergo considerable changes as it adjusts to the redesigned PPS. Given the impending changes, the Commission will proceed cautiously in recommending reductions to payments to more closely align them to costs. A zero update would begin to align

**TABLE
8-10****The number of nursing homes treating Medicaid enrollees declined slightly from 2017 to 2018**

	Average annual percent change					
	2013	2015	2017	2018	2013-2017	2017-2018
Number of facilities	15,082	15,076	15,024	14,955	-0.1%	-0.5%

Note: The 2018 number is through November of that year; it does not include data from the full calendar year.

Source: Certification and Survey Provider Enhanced Reporting on CMS's Survey and Certification Providing Data Quickly system, 2013-2018.

payments with costs while exerting pressure on providers to keep their cost growth low and to engage in practice patterns encouraged by alternative payment models. The Commission will monitor beneficiary access, quality of care, and financial performance and may consider future recommendations based on industry responses to the new payment system.

IMPLICATIONS 8-2**Spending**

- Relative to current law, this recommendation would lower program spending by between \$750 million and \$2 billion for fiscal year 2020 and by between \$5 billion and \$10 billion over five years. Savings occur because current law requires market basket increases for 2020.

Beneficiary and provider

- We do not expect this recommendation to have adverse effects on beneficiaries' access to care. Given the current level of payments, we also do not expect the recommendation to affect providers' willingness or ability to care for Medicare beneficiaries.

Medicaid trends

Section 2801 of the Patient Protection and Affordable Care Act of 2010 requires the Commission to examine spending, use, and financial performance trends in the Medicaid program for providers with a significant portion of revenues or services associated with Medicaid. We

report nursing home spending trends for Medicaid and financial performance for non-Medicare payers. Medicaid revenues and costs are not reported in the Medicare cost reports. In a joint publication with the Medicaid and CHIP Payment Access Commission, we report on characteristics, service use, and spending for dual-eligible beneficiaries (Medicare Payment Advisory Commission and the Medicaid and CHIP Payment and Access Commission 2018).

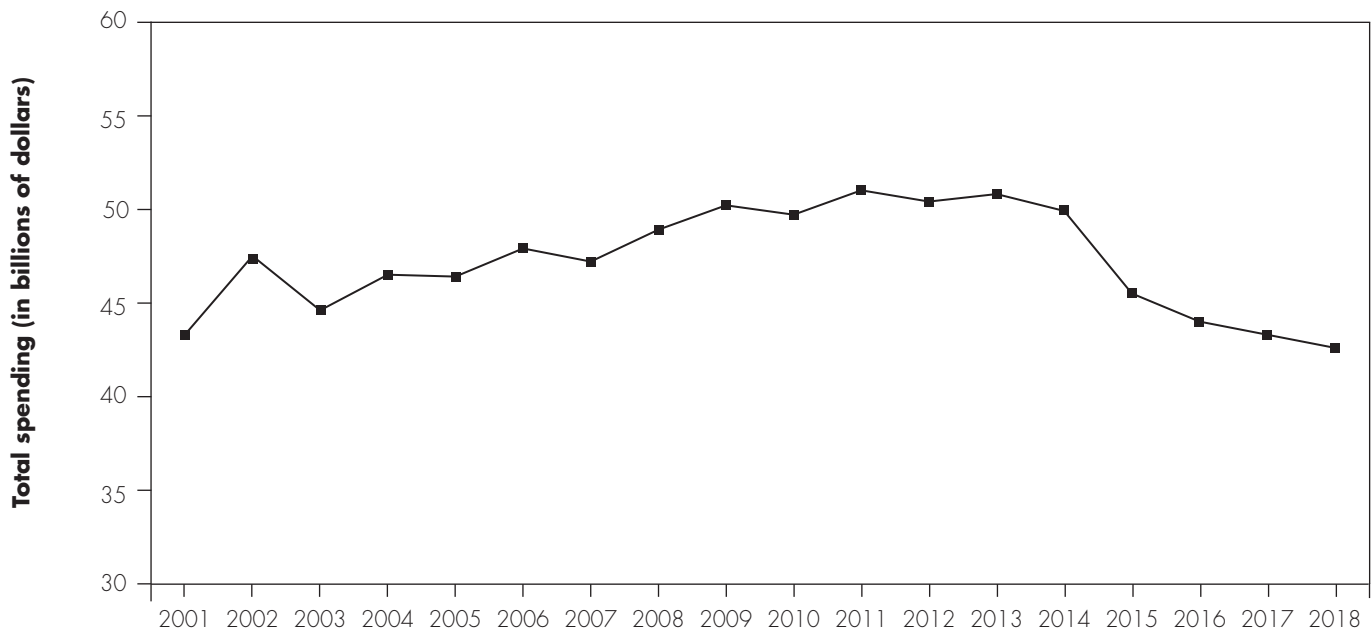
Medicaid covers nursing home (long-term care) and skilled nursing care provided in nursing facilities. Medicaid also pays for long-term care services that Medicare does not cover. For beneficiaries who are dually eligible for Medicaid and Medicare, Medicaid pays the Medicare copayments required of beneficiaries beginning on day 21 of a SNF stay.

Count of Medicaid-certified nursing homes

The number of nursing facilities certified as Medicaid providers has stayed relatively stable, with a small decline between 2017 and 2018 (Table 8-10). The decline may reflect the expansion in some states of home- and community-based services (HCBS), which allow more beneficiaries to remain in their homes rather than an institution. State HCBS waivers and federal initiatives have accelerated the trend toward HCBS. In fiscal year 2018, all 50 states and the District of Columbia expanded the number of beneficiaries served by HCBS, an increase from 47 states in fiscal year 2017 and 46 states in fiscal years 2015 and 2016 (Gifford et al. 2017). The reduced number of Medicaid providers may also reflect some facilities shifting their focus to the skilled care market.

**FIGURE
8-3**

Total Medicaid fee-for-service spending on nursing home services declined about 2 percent, 2001-2018



Note: Spending does not include any managed care organization spending on nursing homes. Data for 2018 are projected.

Source: Office of the Actuary 2018.

Spending

Spending on Medicaid-funded nursing home services (combined state and federal funds) totaled \$43.3 billion in 2017 (Figure 8-3) (Office of the Actuary 2018a). CMS estimates that FFS Medicaid spending on nursing home services decreased by 1.6 percent between 2017 and 2018 and that spending will increase by 0.45 percent in 2019. This trend of lower spending is in part due to an increased use of managed care organizations, whose spending is not included in these data. As of 2017, 24 states operated capitated managed long-term services and supports (Lewis et al. 2018). This number is a 50 percent increase from 2012, when only 16 states had such programs. Furthermore, total enrollment in these programs more than doubled between 2012 and 2017, from 800,000 beneficiaries to 1.8 million beneficiaries.

Analysis of Medicaid rate-setting trends found that 17 states restricted (froze or reduced) rates paid to nursing homes in 2018, while 34 states and the District of

Columbia increased rates (Gifford et al. 2018). More states increased rates to nursing homes in 2018 than in 2017 (only 34 states raised rates in 2017, and 15 states restricted rates) (Gifford et al. 2017). Furthermore, the National Investment Center for Seniors Housing & Care reported that Medicaid revenue per day has been increasing steadily since 2011 (National Investment Center for Seniors Housing & Care 2018). Rates will likely shift in 2019; 40 states and the District of Columbia have indicated that they will increase nursing home rates. Eleven states plan to restrict rates in 2019 (Gifford et al. 2018).

States continue to use provider taxes to raise federal matching funds. In fiscal year 2018, 44 states and the District of Columbia levied provider taxes on nursing homes to increase federal matching funds (Gifford et al. 2018).¹⁶ States can use the augmented revenue to increase payments to providers or to mitigate reductions to payments for services to Medicaid patients (Kaiser Family Foundation 2017).

**TABLE
8-11****Over the past 10 years, total margins remained positive in freestanding SNFs but non-Medicare margins were negative**

Type of margin	2008	2010	2012	2014	2016	2017
Total margin	2.2%	3.6%	1.8%	1.9%	0.7%	0.5%
Non-Medicare margin	-2.4	-1.5	-2.0	-1.5	-2.4	-2.4

Note: SNF (skilled nursing facility). "Total margin" includes the revenues and costs associated with all payers and all lines of business. "Non-Medicare margin" includes the revenues and costs associated with Medicaid and private payers for all lines of business.

Source: MedPAC analysis of Medicare freestanding SNF cost reports for 2008 to 2017.

Total margins and non-Medicare margins in nursing homes

Total margins reflect all payers (including Medicare, Medicaid, private insurers, and managed care) across all lines of business (for example, nursing home care, hospice care, ancillary services, home health care, and investment income). In 2017, total margins were positive (0.5 percent) (Table 8-11). The median total margin was 0.6 percent, with margins at the 25th and 75th percentiles ranging from -5.3 percent to 5.5 percent, respectively (data not shown). Rural and urban freestanding SNFs had similar total margins (0.6 percent and 0.5 percent, respectively). Total margins have declined since 2013 (when the total margin was 1.9 percent), reflecting the impact of reductions to Medicare payments mandated by the Patient Protection and Affordable Care Act of 2010 and the growing share of managed care payments that are lower than Medicare's FFS payments. The aggregate non-Medicare margin (the profitability of all services except Medicare FFS SNF) in 2017 was -2.4 percent, the same as in 2016.

Total margins varied by ownership, though the differences were much smaller than the differences by ownership in Medicare margins. In 2017, the average nonprofit SNF total margin was 1.9 percent compared with 0.2 percent for the average for-profit facility. In 2016, the total margin was 0.8 percent for both nonprofit and for-profit providers. The diverging performances reflect differences in the changes in mixes of revenue and days by payer. Compared with for-profit providers, the share of Medicare revenue and days decreased less for nonprofit facilities and the share of non-Medicare revenues (the lower-payment revenue sources) grew at half the rate of for-profit facilities. (Note that Medicaid revenues are not reported on the Medicare cost report.) Reflecting differences in

payer mix, median facility payments increased 3.4 percent between 2016 and 2017 for nonprofit facilities compared with 2.1 percent for for-profit facilities. Differences in cost growth (median facility costs per day) did not explain the diverging performances. Consistent with the growth in Medicare cost per day (see p. 209), nonprofit facilities experienced higher cost growth compared with for-profit facilities.

The declines in the average total and non-Medicare margins reflect the lower average occupancy rates (which raises the average cost per day) and the lower volume of high-payment Medicare FFS patients. Beneficiaries receiving skilled nursing services are increasingly enrolled in alternative payment models (including bundled payments and ACOs) and MA plans, which typically seek to shorten stays or avoid this setting entirely. In addition, payments from MA plans are generally lower than Medicare's FFS rates (see p. 214). ■

Endnotes

- 1 Throughout this chapter, *beneficiary* refers to an individual whose SNF stay coverage is paid for by Medicare (Part A). Some beneficiaries who no longer qualify for Medicare coverage remain in the facility to receive long-term care services, which are not covered by Medicare. During long-term care stays, beneficiaries may receive care such as physician services, outpatient therapy services, and prescription drugs that are paid for separately under the Part B and Part D benefits. Services furnished outside the Part A–covered stay are not paid under the SNF prospective payment system and are not considered in this chapter. Except where specifically noted, this chapter examines FFS Medicare spending and service use and excludes services and spending for SNF services furnished to beneficiaries enrolled in Medicare Advantage plans. Some beneficiaries also qualify for Medicaid and are referred to as “dual-eligible beneficiaries.”
- 2 A spell of illness ends when there has been a period of 60 consecutive days during which the beneficiary was an inpatient of neither a hospital nor a SNF. Coverage for another 100 days does not begin until a beneficiary has not had hospital care or skilled care in a SNF for 60 consecutive days. Observation days and emergency room stays do not count toward the three-day hospital stay requirement.
- 3 For services to be covered, the SNF must meet Medicare’s requirements of participation and agree to accept Medicare’s payment rates. Medicare’s requirements relate to many aspects of staffing and care delivery, such as requiring a registered nurse in the facility for 8 consecutive hours per day and licensed nurse coverage 24 hours a day, providing physical and occupational therapy services and speech–language pathology services as delineated in each patient’s plan of care, and providing or arranging for physician services 24 hours a day in case of an emergency.
- 4 The program pays separately for some services, including certain chemotherapy drugs; certain customized prosthetics; certain ambulance services; Part B–covered dialysis; emergency services; and certain outpatient services provided in a hospital (such as computed tomography, MRI, radiation therapy, and cardiac catheterizations).
- 5 The SNF *Payment Basics* is available at http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_snf_final_sec.pdf?sfvrsn=0.
- 6 Payments for NTA services are included in the nursing component, even though NTA costs vary much more than nursing care costs and are not correlated with them.
- 7 We include patients who are assigned to the clinically complex and special care case-mix groups in our definition of medically complex. Clinically complex patients have burns, surgical wounds, hemiplegia, or pneumonia, or they receive chemotherapy, oxygen therapy, intravenous medications, or transfusions while in a SNF. Special care patients are comatose; have quadriplegia, chronic obstructive pulmonary disease, septicemia, diabetes requiring daily injections, fever with specific other conditions, cerebral palsy, multiple sclerosis, Parkinson’s disease, respiratory failure, a feeding tube, pressure ulcers of specific sizes, or foot infections; receive radiation therapy or dialysis while a resident; or require parenteral or intravenous feedings or respiratory therapy for seven days. Intensive therapy days are classified in the ultra-high and very high rehabilitation case-mix groups. Rehabilitation groups are based on minutes of rehabilitation provided per week. “Ultra-high rehabilitation” includes patients who receive more than 720 minutes per week; “very high rehabilitation” includes patients who receive 500–719 minutes per week.
- 8 The share of SNF users requiring the most assistance dropped for transferring, walking in corridor, eating, performing personal hygiene, toileting, dressing, and bed mobility; remained the same for always being incontinent; and increased for help with bathing and always being bowel incontinent.
- 9 If we approximate marginal cost as total Medicare costs minus fixed building and equipment costs, then marginal profit can be calculated as follows:

$$\text{Marginal profit} = (\text{payments for Medicare services} - (\text{total Medicare costs} - \text{fixed building and equipment costs})) / \text{Medicare payments}$$

This comparison is a lower bound on the marginal profit because we do not consider any potential labor costs that are fixed.
- 10 The Commission’s measure of discharge to community captures a key goal of many beneficiaries: to go home. It measures the share of beneficiaries discharged home from a SNF. In contrast, CMS’s quality reporting measure gauges the share of beneficiaries who were discharged home, did not have an unplanned readmission within 31 days of discharge, and remained alive.
- 11 CMS’s VBP readmission measure differs from the Commission’s measures that separately track readmissions during the SNF stay and readmissions that occur within 30

- days after discharge. By including readmissions that occur within 30 days of discharge from the hospital, CMS's measure can include readmissions that occur during the SNF stay and after discharge, depending on the length of the SNF stay. For short SNF stays, CMS's measure includes readmissions after discharge from the SNF but still within 30 days of discharge from the hospital stay. For long SNF stays, the measure includes only readmissions that occur within the first 30 days of the SNF stay (assuming an immediate transfer from the hospital) and misses readmissions that occur later in the SNF stay.
- 12 Separate models (with their own covariates) are used to estimate expected community discharge rates for different discharge destinations (e.g., discharged home with home health care, discharged home without home health care, and discharged to a nursing home).
 - 13 With inclusion of the other covariates, age categories were not found to be significant in explaining variation in outcomes and were dropped from the models except for the model explaining differences in readmission during the 30 days after discharge for beneficiaries younger than 65 years residing in the community.
 - 14 The Special Focus Facility Initiative is a program to stimulate improvements in the quality of care at nursing homes with a history of serious quality problems. The initiative targets homes with a pattern over three years of more frequent and more serious problems (including harm or injury to residents) detected in their annual facility surveys. Facilities that improve and maintain those improvements can "graduate" from the program. Providers that do not improve face civil monetary penalties (fines) and eventual termination from Medicare and Medicaid.
 - 15 We compared the assessments conducted at the beginning of stays (the "day 5" assessment). MA plans are not required to submit these assessments, and we cannot determine what share of plans submits them or the possible bias in the assessments that are submitted.
 - 16 A provider tax works as follows: A state taxes all nursing homes and uses the collected amount to help finance the state's share of Medicaid funds. The provider tax increases the state's contribution, which, in turn, raises the amount of federal matching funds. The augmented federal funds more than cover the cost of the provider tax revenue, which is returned to providers. The provider tax is limited to 6 percent of net patient revenues.

References

Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2018. *2018 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Insurance Trust Funds*. Washington, DC: Boards of Trustees.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018a. Certification and Survey Provider Enhanced Reporting (CASPER) on CMS's survey and certification providing data quickly (PDQ) system.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018b. Medicare program; prospective payment system and consolidated billing for skilled nursing facilities (SNF) final rule for FY 2019, SNF Value-Based Purchasing Program, and SNF Quality Reporting Program. Proposed rule. *Federal Register* 83, no. 153 (August 8): 39162–39290.

Centers for Medicare & Medicaid Services, Office of Information Products and Data Analytics, Department of Health and Human Services. 2018c. Personal communication with Maria Diacogiannis, November 1.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017. Medicare program: Prospective payment system and consolidated billing for skilled nursing facilities: Revisions to case-mix methodology. Advance notice of proposed rulemaking with comment. *Federal Register* 82, no. 85 (May 4): 20980–21012.

Colla, C. H., V. A. Lewis, L. S. Kao, et al. 2016. Association between Medicare accountable care organization implementation and spending among clinically vulnerable beneficiaries. *JAMA Internal Medicine* 176, no. 8 (August 1): 1167–1175.

Connoles, P. 2018. LT/PAC financing sources remain rock solid despite outside pressures. *Provider*, September.

Department of Housing and Urban Development. 2018. FY 2018 summary statistics. https://www.hud.gov/federal_housing_administration/healthcare_facilities/residential_care.

Department of Justice. 2018a. Louisville skilled nursing facility to pay \$5,191,470 to settle false claims allegations. News release. March 29. <https://www.justice.gov/usao-wdky/pr/louisville-skilled-nursing-facility-pay-5191470-settle-false-claims-allegations>.

Department of Justice. 2018b. Signature HealthCARE to pay more than \$30 million to resolve False Claims Act allegations related to rehabilitation therapy. News release. June 8. <https://www.justice.gov/opa/pr/signature-healthcare-pay-more-30-million-resolve-false-claims-act-allegations-related>.

Department of Justice. 2018c. Two consulting companies and nine affiliated skilled nursing facilities to pay \$10 million to resolve False Claims Act allegations relating to medically unnecessary rehabilitation therapy services. News release. July 18. <https://www.justice.gov/opa/pr/two-consulting-companies-and-nine-affiliated-skilled-nursing-facilities-pay-10-million>.

Department of Justice. 2018d. United States reaches settlement with four facilities and two medical companies to resolve allegations of fraudulent billing in skilled nursing facilities. News release. March 22. <https://www.justice.gov/usao-md/pr/united-states-reaches-settlement-four-facilities-and-two-medical-companies-resolve>.

Dummit, L., K. Smathers, O. J. Bright, et al. 2018. *CMS Comprehensive Care for Joint Replacement Model: Performance year 1 evaluation report*. Report prepared by the Lewin Group for the Centers for Medicare & Medicaid Services. Falls Church, VA: The Lewin Group. <https://downloads.cms.gov/files/cmmt/bpci-models2-4yr3evalrpt.pdf>.

Dummit, L. A., D. Kahvecioglu, G. Marrufo, et al. 2016. Association between hospital participation in a Medicare bundled payment initiative and payments and quality outcomes for lower extremity joint replacement episodes. *Journal of the American Medical Association* 316, no. 12 (September 27): 1267–1278.

Finkelstein, A., Y. Ji, N. Mahoney, et al. 2018. Mandatory Medicare bundled payment program for lower extremity joint replacement and discharge to institutional post-acute care: Interim analysis of the first year of a 5-year randomized trial. *Journal of the American Medical Association* 320, no. 9 (September 4): 892–900.

Flynn, M. 2018. REIT sell-offs, investor demand fuel strong skilled nursing volume in Q2. *Skilled Nursing News*, July 24.

Fowler, A. C., D. C. Grabowski, R. J. Gambrel, et al. 2017. Corporate investors increased common ownership in hospitals and the postacute care and hospice sectors. *Health Affairs* 36, no. 9 (September 1): 1547–1555.

- Gifford, K., E. Ellis, B. C. Edwards, et al. 2018. *States focus on quality and outcomes amid waiver changes: Results from a 50-state Medicaid budget survey for state fiscal years 2018 and 2019*. Prepared by staff from Health Management Associates and the Kaiser Commission on Medicaid and the Uninsured/Kaiser Family Foundation. Menlo Park, CA: Kaiser Family Foundation. <https://downloads.cms.gov/files/cmimi/bpci-models2-4yr3evalrpt.pdf>.
- Gifford, K., E. Ellis, B. C. Edwards, et al. 2017. *Medicaid moving ahead in uncertain times: Results from a 50-state Medicaid budget survey for state fiscal years 2017 and 2018*. Prepared by staff from Health Management Associates and the Kaiser Commission on Medicaid and the Uninsured/Kaiser Family Foundation. Menlo Park, CA: Kaiser Family Foundation.
- Government Accountability Office. 2002. *Skilled nursing facilities: Providers have responded to Medicare payment system by changing practices*. GAO-02-841. Washington, DC: GAO.
- Government Accountability Office. 1999. *Skilled nursing facilities: Medicare payments need to better account for nontherapy ancillary cost variation*. GAO/HEHS-99-185. Washington, DC: GAO.
- Huckfeldt, P. J., L. Weissblum, J. J. Escarce, et al. 2018. Do skilled nursing facilities selected to participate in preferred provider networks have higher quality and lower costs? *Health Services Research* (August 15).
- IQVIA Institute for Human Data Science. 2018. *U.S. nursing home market summary*. Parsippany, NJ: IQVIA.
- Irving Levin Associates Inc. 2018. *The senior care acquisition report: 23rd edition*. Norwalk, CT: Irving Levin Associates Inc.
- Jung, H. Y., A. N. Trivedi, D. C. Grabowski, et al. 2016. Does more therapy in skilled nursing facilities lead to better outcomes in patients with hip fracture? *Physical Therapy* 96, no. 1 (January): 81–89.
- Kaiser Family Foundation. 2017. *States and Medicaid provider taxes or fees*. Fact sheet. Washington, DC: KFF. <http://files.kff.org/attachment/fact-sheet-medicare-provider-taxesfees-an-update>.
- Kaufman, B. 2018. Wrapping up year 2017 in data: Despite numerous challenges last year, investor interest continues in the skilled nursing sector. *Provider*, April.
- Konetzka, R. T., E. A. Stuart, and R. M. Werner. 2016. The effect of integration of hospitals and post-acute care providers on Medicare payment and patient outcomes. <https://ssrn.com/abstract=2805172>.
- Kramer, A., R. Fish, and M. Lin. 2014. *Potentially avoidable readmission and functional outcome quality measure development and 2012 rates for SNFs*. Report prepared for the Medicare Payment Advisory Commission. Washington, DC: MedPAC.
- Kramer, A., M. Lin, R. Fish, et al. 2015. *Refinement of community discharge, potentially avoidable readmission, and functional outcome SNF quality measures, for fiscal years 2011, 2012, and 2013*. Report prepared for the Medicare Payment Advisory Commission. Washington, DC: MedPAC.
- Lewis, E., S. Eiken, A. Amos, et al. 2018. *The growth of managed long-term services and supports (MLTSS) programs: A 2017 update*. Ann Arbor, MI: Truven Health Analytics.
- Liu, K., B. Garrett, D. A. Wissoker, et al. 2007. *Final report to CMS: Options for improving Medicare payment for skilled nursing facilities*. Report submitted by the Urban Institute to the Centers for Medicare & Medicaid Services. Washington, DC: The Urban Institute.
- Maxwell, S., J. Wiener, and K. Liu. 2003. *A review of issues in the development and implementation of the skilled nursing facility prospective payment system*. Report to the Centers for Medicare & Medicaid Services. Contract no. 500-00-0025/TO#2. Baltimore, MD: CMS.
- McHugh, J. P., A. Foster, V. Mor, et al. 2017. Reducing hospital readmissions through preferred networks of skilled nursing facilities. *Health Affairs* 36, no. 9 (September 1): 1591–1598.
- McWilliams, J. M., L. G. Gilstrap, D. G. Stevenson, et al. 2017. Changes in postacute care in the Medicare Shared Savings Program. *JAMA Internal Medicine* 177, no. 4 (April 1): 518–526.
- Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2008. *Report to the Congress: Reforming the delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2007. *Report to the Congress: Promoting greater efficiency in Medicare*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission and the Medicaid and CHIP Payment and Access Commission. 2018. *Data book: Beneficiaries dually eligible for Medicare and Medicaid*. Washington, DC: MedPAC/MACPAC.

Medicare Payment Advisory Commission and The Urban Institute. 2015. *The need to reform Medicare's payments to SNFs is as strong as ever*. Washington, DC: MedPAC/Urban Institute.

Mendelson, D. A., F. Bentley, and E. Breese. 2018. *Medicare patients are using fewer skilled nursing services*. Washington, DC: Avalere Health.

Meyers, D. J., V. Mor, and M. Rahman. 2018. Medicare Advantage enrollees more likely to enter lower-quality nursing homes compared to fee-for-service enrollees. *Health Affairs* 37, no. 1 (January): 78–85.

National Investment Center for Seniors Housing & Care. 2018. *Skilled nursing data report*. Annapolis, MD: National Investment Center for Seniors Housing & Care. http://info.nic.org/skilled_data_report_pr.

Office of Inspector General, Department of Health and Human Services. 2015. *The Medicare payment system for skilled nursing facilities needs to be reevaluated*. Report no. OEI–02–13–00610. Washington, DC: OIG.

Office of the Actuary, Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018a. Personal communication of author with Christopher Truffer. October 11.

Office of the Actuary, Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018b. Personal communication of author with James Hardesty. September 18.

Rahman, M., E. A. Gadbois, D. A. Tyler, et al. 2018. Hospital-skilled nursing facility collaboration: A mixed-methods approach to understanding the effect of linkage strategies. *Health Services Research* (August 5).

Ritchie, W., and D. Johnson. 2017. Skilled nursing facilities and REITs: A symbiotic relationship facing significant disruption. *Cain Brothers' Comments*, April 28.

Spanko, A. 2018. Inside the key metrics skilled nursing buyers should track before investing. *Skilled Nursing News*, August 20.

Temkin-Greener, H., T. Lee, T. Caprio, et al. 2018. Rehabilitation therapy for nursing home residents at the end-of-life. *Journal of the American Medical Directors Association* (September 24).

Tyler, D. A., J. P. McHugh, R. R. Shield, et al. 2018. Challenges and consequences of reduced skilled nursing facility lengths of stay. *Health Services Research* (June 5).

Urban Institute. 2004. *Classifying Medicare SNF patients: Initial findings from three approaches*. Report to the Centers for Medicare & Medicaid Services. Contract no. 500–00–0025. Baltimore, MD: CMS.

White, A., and Q. Zheng. 2018. *Differences in resident case-mix between Medicare and non-Medicare nursing home residents*. Report prepared by staff from Abt Associates for the Medicare Payment Advisory Commission. Washington, DC: MedPAC. <https://innovation.cms.gov/Files/reports/bpci-models2-4-yr2evalrpt.pdf>.

White, C., S. D. Pizer, and A. J. White. 2002. Assessing the RUG-III resident classification system for skilled nursing facilities. *Health Care Financing Review* 24, no. 2 (Winter): 7–15.

Winblad, U., V. Mor, J. P. McHugh, et al. 2017. ACO-affiliated hospitals reduced rehospitalizations from skilled nursing facilities faster than other hospitals. *Health Affairs* 36, no. 1 (January 1): 67–73.

Zhu, J. M., V. Patel, J. A. Shea, et al. 2018. Hospitals using bundled payment report reducing skilled nursing facility use and improving care integration. *Health Affairs* 37, no. 8 (August): 1282–1289.

Ziegler. 2018. *Post-acute activity*. Ziegler CFO Hotline. Chicago, IL: Ziegler. November 24.

CHAPTER 9

Home health care services

R E C O M M E N D A T I O N

- 9** For 2020, the Congress should reduce the calendar year 2019 Medicare base payment rate for home health agencies by 5 percent.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Home health care services

Chapter summary

Home health agencies (HHAs) provide services to beneficiaries who are homebound and need skilled nursing or therapy. In 2017, about 3.4 million Medicare beneficiaries received care, and the program spent \$17.7 billion on home health care services. In that year, almost 12,000 HHAs participated in Medicare.

Assessment of payment adequacy

The indicators of payment adequacy for home health care are generally positive.

Beneficiaries' access to care—Access to home health care is adequate: Over 98 percent of beneficiaries lived in a ZIP code where an HHA operated in 2017, and 84 percent lived in a ZIP code with five or more HHAs.

- **Capacity and supply of providers**—The number of HHAs fell slightly (by 3 percent) in 2017, but this decline follows a long period of growth in prior years. From 2004 to 2016, the number of HHAs increased by 60 percent. The decline in 2017 was concentrated in areas that experienced sharp increases in supply in prior years.
- **Volume of services**—From 2002 to 2016, home health utilization increased substantially, with the number of episodes rising nearly 60 percent and the episodes per home health user climbing from 1.6 to 1.9

In this chapter

- Are Medicare payments adequate in 2019?
.....
- How should Medicare payments change in 2020?
.....

episodes. In 2017, volume dropped 3.1 percent, the total number of fee-for-service users also fell slightly, and the average number of episodes per home health user declined by 1.4 percent. Episodes not preceded by a hospitalization accounted for most of the growth since 2002, increasing from about half of episodes in 2002 to two-thirds of episodes in 2017.

- ***Marginal profit***—In 2017, freestanding HHAs’ marginal profit—that is, the rate at which Medicare payments exceed providers’ marginal cost—was 17.5 percent, suggesting a significant financial incentive for HHAs to serve Medicare patients.

Quality of care—In 2017, the rate of home health patients who were hospitalized or received treatment in the emergency room during an episode did not change significantly, similar to the trend in prior years, while measures of functional status, such as improvement in walking and transferring, increased. However, the functional status measures should be interpreted cautiously because these measures are based on provider-reported data and could be affected by agency coding practices.

Providers’ access to capital—Access to capital is a less important indicator of Medicare payment adequacy for home health care because this sector is less capital intensive than other health care sectors. The major publicly traded for-profit home health companies had sufficient access to capital markets for their credit needs. Several acquisitions to increase capacity and expansion of capacity by publicly traded home health care firms indicate adequate access to capital. In 2017, the average all-payer margin for HHAs was 4.5 percent.

Medicare payments and providers’ costs—In 2017, Medicare spending for home health care declined by 1.6 percent. However, between 2002 and 2016, spending increased by over 88 percent. For more than a decade, payments under the home health prospective payment system (PPS) have consistently and substantially exceeded costs. In 2017, Medicare margins for freestanding agencies averaged 15.2 percent. The projected margin for 2019 is 16 percent. Two factors have contributed to payments exceeding costs: Agencies have reduced episode costs by decreasing the number of visits provided, and cost growth in recent years has been lower than the annual payment updates for home health care.

The high margins of freestanding HHAs have led the Commission to recommend a 5 percent reduction in the home health PPS base payment rate for 2020. However, this reduction will likely be inadequate to align Medicare payments with providers’ actual costs, and further reductions through rebasing will likely be necessary. In past years, the Commission has recommended that payments be rebased in the year

following a payment rate reduction. However, given the congressionally mandated revisions to the home health PPS that are slated for 2020, our recommendation for 2020 addresses only the level of payment. The planned revisions to the home health PPS likely will alter the mix and level of services HHAs provide. Future rebasing should reflect the new patterns of care. Those data will not be available until mid-2021. ■

Background

Medicare home health care consists of skilled nursing, physical therapy, occupational therapy, speech therapy, aide services, and medical social work provided to beneficiaries in their homes. To be eligible for Medicare's home health benefit, beneficiaries must need part-time (fewer than eight hours per day) or intermittent skilled care to treat their illnesses or injuries and must be unable to leave their homes without considerable effort. In contrast to coverage for skilled nursing facility services, Medicare does not require a preceding hospital stay to qualify for home health care. Also, unlike for most services, Medicare does not require copayments or a deductible for home health services. In 2017, about 3.4 million Medicare beneficiaries received home care, and the program spent \$17.7 billion on home health services. Medicare spending for home health care more than doubled between 2001 and 2017, and this care accounted for about 3 percent of Medicare fee-for-service (FFS) spending in 2016.

Medicare requires that a physician certify a patient's eligibility for home health care and that a patient receiving services be under the care of a physician. In 2011, Medicare implemented a requirement that a beneficiary have a face-to-face encounter with the physician ordering home health care. The encounter must take place in the 90 days preceding or 30 days following the initiation of home health care. Contacts through nonphysician practitioners or authorized telehealth services may be used to satisfy the requirement.

Medicare pays for home health care in 60-day episodes. Payments for an episode are adjusted to account for a patient's clinical and functional characteristics and the number of therapy visits provided in the episode. If beneficiaries need additional covered home health services at the end of the initial 60-day episode, another episode commences and Medicare pays for an additional episode. (An overview of the home health prospective payment system (PPS) is available at http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_hha_final_sec.pdf?sfvrsn=0.) Coverage for additional episodes generally has the same requirements as the initial episode (i.e., the beneficiary must be homebound and need skilled care). The Bipartisan Budget Act of 2018 made significant changes to payments for home health care services in 2020 (see text box on revisions to the home health PPS, pp. 232–233).

Home health care plays an important role in the care of Medicare beneficiaries. Home health can serve as an efficient substitute for or step down from institutional post-acute care (PAC), helping to keep beneficiaries in their homes and potentially reducing Medicare expenditures. Some new models of care—such as value-based purchasing, the Hospital Readmission Reduction Program (HRRP), and Medicare's bundled acute care demonstrations—encourage closer cooperation between home health agencies (HHAs) and other providers to improve care for beneficiaries. In the future, changes in technology and new models of care may make it possible to deliver more care in the home. However, establishing appropriate incentives and levels of payment in FFS Medicare has proven challenging.

Use and growth of the home health benefit has varied substantially with changes in coverage and payment policy

The home health benefit has changed substantially since the 1980s. Implementation of the inpatient hospital PPS in 1983 led to increased use of home health services as hospital lengths of stay decreased. Medicare tightened coverage of some services, but the courts overturned these curbs in 1988. After this change, the number of HHAs, users, and services expanded rapidly in the early 1990s. Between 1990 and 1995, the number of annual users rose by 75 percent, and the number of visits more than tripled to about 250 million a year. Spending increased more than fourfold between 1990 and 1995, from \$3.7 billion to \$15.4 billion. As the rates of use and the duration of home health spells grew, there was concern that the benefit was serving more as a long-term care benefit (Government Accountability Office 1996). Further, many of the services provided were believed to be improper. For example, in one analysis of 1995 to 1996 data, the Office of Inspector General found that about 40 percent of the services in a sample of Medicare claims did not meet Medicare requirements for payment (mostly because services did not meet Medicare's standards for a reasonable and necessary service, patients did not meet the homebound coverage requirement, or the medical record did not document that a billed service was provided) (Office of Inspector General 1996).

The trends of the early 1990s prompted increased program integrity actions, refinements of coverage standards, and temporary spending caps through an interim payment system (IPS). Between 1997 and 2000, the number of

Revisions to the home health prospective payment system in 2020

The Bipartisan Budget Act of 2018 requires CMS to implement two major changes to the home health prospective payment system (PPS) in 2020: a new 30-day unit of payment in place of the current 60-day unit of payment and the elimination of the number of therapy visits as a factor in the payment system. These changes follow several years of analysis by the Commission and CMS to identify reforms to home health payment. The elimination of the therapy thresholds is consistent with a recommendation the Commission first made in 2011 (Medicare Payment Advisory Commission 2011).

The current payment system has a series of nine payment thresholds that increase payment as the number of therapy visits in an episode increases; in effect, providing more therapy visits increases payments. Such an adjustment encourages agencies to consider financial incentives when providing therapy services. The Commission has noted that home health agencies (HHAs) appear to adjust their services to maximize financial results under these thresholds (Medicare Payment Advisory Commission 2011). An investigation by the U.S. Senate Committee on Finance found that many agencies were targeting therapy services based on financial incentives and called

for Medicare to move away from using therapy as a payment factor (U.S. Senate Committee on Finance 2011). Eliminating the thresholds in 2020 will mitigate the adverse incentives in the home health PPS.

CMS also plans to implement a new case-mix system, the Patient-Driven Groupings Model (PDGM), in 2020. The PDGM categorizes episodes into 432 payment groups based on the following characteristics:

- **Episode timing**—Services in the first 30 days of a spell of home health would be classified as “early,” while services in the subsequent 30-day period would be classified as “late.” For example, if a beneficiary had two consecutive 60-day payment episodes under the current system, the first 30-day period would be classified as early, while the three subsequent 30-day periods would be classified as late 30-day periods. Though the unit of payment will move to a 30-day episode, beneficiaries receiving home health care would continue to be assessed for payment purposes at the beginning of care and at the beginning of each subsequent 60-day period of service.
- **Referral source**—Cases would be categorized based on the services received before the beginning

(continued next page)

beneficiaries using home health services fell by about 1 million, and the number of visits fell by 65 percent (Table 9-1, p. 234). The mix of services changed from predominantly aide services in 1997 to predominantly skilled nursing visits in 2000, and therapy visits increased between 1997 and 2000 from 10 percent to 19 percent of visits. Between 1997 and 2000, total spending for home health services declined by 52 percent. The reduction in payments had a swift effect on the supply of HHAs, and by 2000, the number of HHAs had fallen by 31 percent. However, after the PPS was implemented in 2000, service use and agency supply rebounded at a rapid pace. Between 2001 and 2017, the number of home health episodes rose

from 3.9 million to 6.3 million (data not shown). In 2017, the number of HHAs was 11,844, higher than the level of supply during the 1990s. Almost all the new agencies since implementation of the PPS have been for-profit providers (data not shown).

The steep declines in services under the IPS did not appear to adversely affect the quality of care beneficiaries received; one analysis found that patient satisfaction with home health services was mostly unchanged in that period (McCall et al. 2004, McCall et al. 2003). In 2004, the Commission also concluded that the quality of care did not decline between use of the IPS and the implementation of

Revisions to the home health prospective payment system in 2020 (cont.)

of the episode: prior hospitalization or institutional post-acute care on the one hand, or admission from the community on the other.

- **Clinical category**—The new system would create 12 clinical categories based on patients' reported conditions or treatments: need for musculoskeletal rehabilitation; neuro/stroke rehabilitation; wound care; behavioral health care; complex care; and medication management, teaching, and assessment.
- **Functional/cognitive level**—Similar to the existing system, the PDGM would classify patients' cognitive and physical functioning using information from the Outcomes Assessment Information Set, known as OASIS, home health patient assessment.
- **Presence of comorbidities**— The PDGM will adjust payment for commonly occurring comorbidities in home health care. There would be a three-tiered adjustment for selected comorbidities.

CMS analyzed the PDGM's likely impact in the 2019 home health payment rule, finding that, in general, funds would be redistributed from HHAs that provide more therapy to those that provide relatively more nursing. Specifically:

- Payments in 2020 would increase by 2.9 percent for nonprofit agencies and 3.9 percent for facility-based HHAs.
- Payments would fall by 0.4 percent for freestanding agencies and fall by 1.2 percent for for-profit HHAs.
- HHAs in urban areas would see a 0.6 percent payment decrease, while those in rural areas would see a 4.0 percent increase.
- Payments would rise for smaller providers and fall for larger providers. For example, payments would increase by 1.9 percent for the 2,841 HHAs with less than 100 episodes in annual volume and would drop 0.2 percent for larger HHAs with more than a 1,000 episodes a year. ■

the PPS (Medicare Payment Advisory Commission 2004). The similarity in quality of care under the IPS and the PPS suggests that the payment reductions in the Balanced Budget Act of 1997 led HHAs to reduce costs and utilization without a measurable difference in the quality of patient care.

Medicare has always overpaid for home health services under the PPS

Payments for home health care have substantially exceeded costs since Medicare established the PPS. In 2001, the first full year of the PPS, average Medicare margins for freestanding HHAs equaled 23 percent (Figure 9-1, p. 235).¹ The high margins in the first year suggest that the PPS established a base rate well in excess of costs. The base rate assumed that the average number of visits

per episode between 1998 and 2001 would decline about 15 percent, while the actual decline was about 32 percent (Table 9-2, p. 235). Between 2001 and 2017, the number of visits per episode declined. The number of therapy services per episode increased, but this increase has been more than offset by the decline in all other service types (nursing, home health aide, and medical social services). In addition, HHAs have been able to hold the rate of episode cost growth below 1 percent in many years, lower than the rate of inflation assumed in the home health payment update (data not shown). Consequently, HHAs were able to garner extremely high average payments relative to the cost of services provided. Between 2001 and 2016, freestanding HHA margins averaged 16.3 percent (Figure 9-1, p. 235).

**TABLE
9-1****Changes in supply and utilization of home health care, 1997-2017**

	1997	2000	2016	2017	Percent change		
					1997-2000	2000-2016	2016-2017
Home health agencies	10,917	7,528	12,204	11,844	-31%	62%	-3%
Total spending (in billions)	\$17.7	\$8.5	\$18.1	\$17.7	-52	113	-2
Users (in millions)	3.6	2.5	3.4	3.4	-31	38	-2
Number of visits (in millions)	258.2	90.6	108.3	104.8	-65	20	-3
Visit type (percent of total)							
Skilled nursing	41%	49%	49%	48%	20	-1	-2
Home health aide	48	31	10	9	-37	-68	-11
Therapy	10	19	41	43	101	112	5
Medical social services	1	1	1	1	1	-25	<-0.1
Number of visits per user	73	37	31	31	-49	-15	-2
Percent of FFS beneficiaries who used home health services	10.5%	7.4%	8.9%	8.8%	9.4	22	-1

Note: FFS (fee-for-service). Medicare did not pay on a per episode basis before October 2000. Yearly figures presented in the table are rounded, but figures in the percent change columns were calculated using unrounded data.

Source: Home health standard analytical file 2017; *Health Care Financing Review*, Medicare and Medicaid Statistical Supplement 2002.

Reductions mandated in 2010 legislation have not significantly lowered payment for home health services

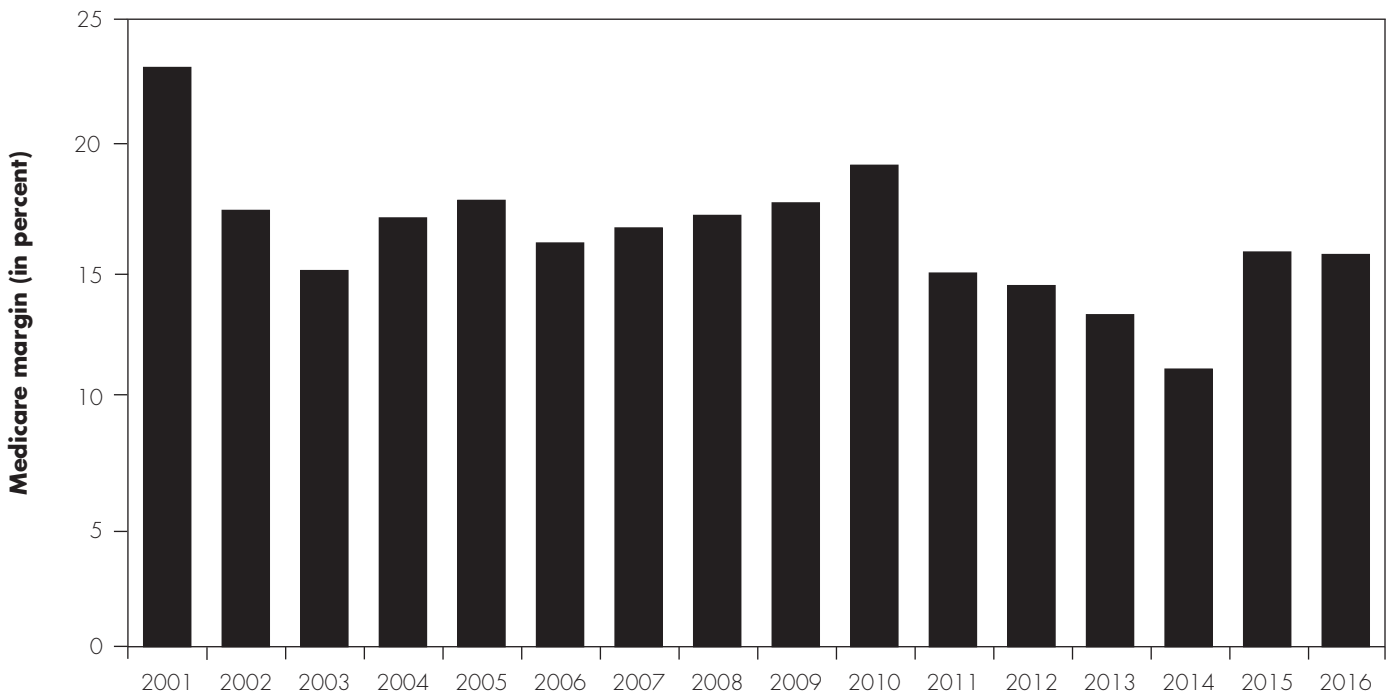
In 2010, the Commission recommended that Medicare lower home health payments to make them more consistent with costs, a process referred to as payment rebasing. The Patient Protection and Affordable Care Act of 2010 (PPACA) included several reductions intended to address home health care's high Medicare payments, including rebasing the payment system. However, these policies have not achieved the goal of making payments more consistent with actual costs.

PPACA offset the annual rebasing adjustment by the payment update for each year from 2014 through 2017.² CMS set the rebasing reduction to the maximum amount permitted under the PPACA formula, which was equal to 3.5 percent of the 2010 base rate, or an annual reduction of \$81 per 60-day episode.³ However, the size of the base rate has increased since 2010, so this reduction averaged 2.8 percent in each year from 2014 through 2017 (Table

9-3, p. 236). In addition, the annual payment update offset these reductions. The cumulative effect of the PPACA reduction and the payment update resulted in a payment reduction of 2.6 percent for the four years of rebasing. This modest decrease is smaller than the payment reductions the industry has weathered in the past; since the implementation of PPS in 2000, Medicare margins for freestanding HHAs have always exceeded 10 percent.

Ensuring appropriate use of home health care is challenging

Policymakers have long struggled to define the role of the home health benefit in Medicare (Benjamin 1993). From the outset, there was a concern that setting a narrow policy could result in beneficiaries using other, more expensive services, while a policy that was too broad could lead to wasteful or ineffective use of the home health benefit (Feder and Lambrew 1996). Medicare relies on the skilled care and homebound requirements as primary determinants of home health eligibility, but these broad coverage criteria permit beneficiaries to receive

**FIGURE
9-1****Medicare margins of freestanding home health agencies
remained high between 2001 and 2016**

Source: Medicare cost reports.

services in the home even though they are capable of leaving home for medical care, which most home health beneficiaries do (Wolff et al. 2008). Medicare does not provide any incentives for beneficiaries or providers

to consider alternatives to home health care, such as outpatient services. Beneficiaries who meet program coverage requirements can receive an unlimited number of home health episodes and face no cost sharing. In

**TABLE
9-2****Medicare visits per episode before and after implementation of PPS**

Type of visit	Visits per episode				Percent change in:		
	1998	2001	2016	2017	1998-2001	2001-2016	2016-2017
Skilled nursing	14.1	10.5	8.6	8.4	-25%	-18%	-3%
Therapy (physical, occupational, and speech-language pathology)	3.8	5.2	7.3	7.7	39	40	5
Home health aide	13.4	5.5	1.8	1.6	-59	-68	-11
Medical social services	0.3	0.2	0.1	0.1	-36	-33	-0.2
Total	31.6	21.4	17.8	17.8	-32	-17	-0.2

Note: PPS (prospective payment system). The PPS was implemented in October 2000. Data exclude low-utilization episodes. Yearly figures presented in the table are rounded, but figures in the percent change columns were calculated using unrounded data.

Source: Home health standard analytic file.

**TABLE
9-3****Impact of PPACA rebasing on payments for 60-day episodes**

	Annual percent change				Cumulative change, 2014-2017
	2014	2015	2016	2017	
Rebasing adjustment	-2.8%	-2.8%	-2.8%	-2.8%	-10.7%
Legislated payment update	2.3	2.1	1.9	2.5	9.1
Net payment reduction	-0.6	-0.8	-1.0	-0.9	-2.6

Note: PPACA (Patient Protection and Affordable Care Act of 2010). Effects of payment changes are multiplicative.

Source: MedPAC analysis based on home health prospective payment system final rules for 2014 through 2017 from CMS.

addition, the program relies on HHAs and physicians to follow program requirements for determining beneficiary needs, but evidence from prior years suggests that they do not consistently follow Medicare's standards (Cheh et al. 2007, Department of Health and Human Services 2018, Office of Inspector General 2001). Concerns about ensuring the appropriate use of home health episodes not preceded by a hospitalization led the Commission to recommend a copayment for these episodes (Medicare Payment Advisory Commission 2011).

Program integrity is a continuing challenge in home health care

In 2010, the Commission made a recommendation to curb wasteful and fraudulent home health services (Medicare Payment Advisory Commission 2010). This recommendation calls on the Health and Human Services Secretary to use the department's authorities under current law to examine providers with aberrant patterns of utilization for possible fraud and abuse. PPACA permits Medicare to implement temporary moratoriums on the enrollment of new HHAs in areas believed to have a high incidence of fraud. In 2017, Medicare implemented statewide moratoriums for HHAs in Florida, Illinois, Michigan, and Texas, expanding previously established local moratoriums in these states. There have also been numerous criminal prosecutions for home health fraud, most notably in Miami and Detroit.

CMS has experimented with prepayment claims review as a means to reduce inappropriate billing. In 2016, CMS operated the Pre-claim Review Demonstration in Illinois

for 10 months. Under the demonstration, Medicare conducted a full review of all home health claims in the state. HHAs were required to submit documentation indicating that the beneficiary met program coverage standards when filing an initial request for payment. Payment would be reduced by 25 percent for episodes for which HHAs did not submit supporting documentation with the initial claim. Though most claims were approved, the Government Accountability Office (GAO) found that payments dropped by about \$100 million for the 10 months the demonstration was in effect. CMS suspended the demonstration in March 2017 (Government Accountability Office 2018).

CMS recently announced plans to implement a revised version of the demonstration. Under the revised demonstration, HHAs in Illinois will have the option of submitting additional supporting documentation before or after payment. HHAs that have acceptable affirmation rates during the review process will be released from the review requirement. HHAs that do not submit any documentation during the demonstration will have their payments reduced by 25 percent and possibly be subject to postpayment review. CMS plans to expand the demonstration to Florida, North Carolina, Ohio, and Texas after gaining experience in Illinois.

Are Medicare payments adequate in 2019?

The Commission reviews several indicators to determine the level at which payments will be adequate to cover

**TABLE
9-4****Number of participating home health agencies declined
in 2017 but remained high relative to earlier years**

							Percent change	
	2004	2008	2012	2015	2016	2017	2004-2016	2016-2017
Active home health agencies	7,651	9,787	12,311	12,346	12,204	11,844	60%	-3.0%
Number of home health agencies per 10,000 FFS beneficiaries	2.1	2.8	3.3	3.2	3.2	3.1	51	-2.9

Note: FFS (fee-for-service). "Active home health agencies" includes all agencies operating during a year, including agencies that closed or opened at some point during the year.

Source: CMS's Provider of Service file and 2018 annual report of the Boards of Trustees of the Medicare trust funds.

the costs of an efficient provider in 2019. We assess beneficiary access to care by examining the supply of home health providers, annual changes in the volume of services, and marginal profit. The review also examines quality of care, access to capital, and the relationship between Medicare's payments and providers' costs. Overall, the Medicare payment adequacy indicators for HHAs are positive.

Beneficiaries' access to care: Almost all beneficiaries live in an area served by HHAs

Supply and volume indicators show that almost all beneficiaries have access to home health services. In 2017, over 98 percent of beneficiaries lived in a ZIP code served by at least one HHA, 97 percent lived in a ZIP code served by two or more HHAs, and 84 percent lived in a ZIP code served by five or more agencies. These findings are consistent with our prior reviews of access.⁴

Supply of providers: Agency supply remains high despite recent decline

Though the supply of HHAs declined slightly in 2017, supply still remains relatively high. Since 2004, the number of HHAs in Medicare has increased by over 4,000 agencies, reaching 11,844 agencies in 2017 (Table 9-4). The slight decline in 2017 was concentrated in Florida and Texas, states that experienced higher than average increases in supply in prior years. These states have been targeted by a myriad of antifraud measures, including

criminal investigations and moratoriums on the entry of new HHAs. The number of HHAs exiting the program has increased in recent years in these states, and moratoriums have likely stopped the entry of new HHAs. Even with declines in these states, however, the supply of HHAs in the two states is almost three times the supply of HHAs that were available in 2001, with supply exceeding 3,400 HHAs in 2017.

From 2004 to 2017, the number of HHAs per 10,000 FFS beneficiaries rose 46.6 percent, from 2.1 to 3.1 (Table 9-4). Most of the new HHAs were for profit. However, supply varies significantly among states. In 2017, Texas averaged 8.7 HHAs per 10,000 beneficiaries, while New Jersey averaged less than 1.0 HHA per 10,000 beneficiaries. The extreme variation demonstrates that the number of providers is a limited measure of capacity because HHAs can vary in size. Also, because home health care is not provided in a medical facility, HHAs can adjust their service areas as local conditions change. Even the number of employees may not be an effective metric because HHAs can use contract staff to meet their patients' needs.

Episode volume declined slightly in 2017

Episode volume in 2017 declined by 3.1 percent (Table 9-5, p. 238). This decline is part of a trend that began in 2012, but this period of decline was preceded by a period of rapid growth (Figure 9-2, p. 239). Between 2002 and 2011, total episodes increased by 67 percent from 4.1

**TABLE
9-5****Fee-for-service home health care services have increased significantly since 2002**

	2002	2011	2013	2016	2017	Percent change	
						2002–2016	2016–2017
Home health users (in millions)	2.5	3.4	3.5	3.5	3.4	37.5%	–1.7%
Share of beneficiaries using home health care	7.2%	9.4%	9.2%	8.9%	8.8%	24.0	–1.4
Episodes (in millions):	4.1	6.8	6.7	6.5	6.3	59.4	–3.1
Per home health user	1.6	2.0	1.9	1.9	1.9	16.0	–1.4
Per FFS beneficiary	0.12	0.19	0.18	0.17	0.16	44.1	–2.8
Payments (in billions)	\$9.5	\$18.3	\$17.8	\$18.0	\$17.7	88.8	–1.6
Per home health user	3,783	5,312	5,132	5,196	5,202	37.4	0.1
Per home health episode	2,645	2,916	2,896	2,988	3,039	13.0	1.4

Note: FFS (fee-for-service). Percent change is calculated on numbers that have not been rounded; payment per episode excludes low-utilization payment adjustment cases.

Source: MedPAC analysis of home health standard analytical file.

million episodes to 6.8 million episodes (Table 9-5). The decline since 2011 has been concentrated in a few states, with five states (Florida, Illinois, Louisiana, Tennessee, and Texas) accounting for most of the decline in episodes. However, utilization in these five states had more than doubled between 2002 and 2011, higher than in most other areas (Figure 9-2).

Changes in average payment per full episode (defined as comprising more than four visits) underscore the limited impact of the PPACA rebasing policy that was implemented in 2014 through 2017.⁵ The average payment per episode in 2017 was 5 percent higher than the average payment per episode for 2013, the year before the PPACA adjustments were implemented (Table 9-5). The per episode payment growth is even more remarkable since Medicare implemented additional payment reductions during this period, such as reductions for changes in coding practices.

The decline in home health utilization since 2011 reflects changes in both the demand for home health services and the supply of HHAs. The number of hospital discharges, a common source of referrals, declined by 11 percent from 2011 to 2014 and has not changed significantly since, indicating that demand for PAC services has not increased since 2011. In addition, several actions have

been taken to curb fraud, waste, and abuse in Medicare home health care.

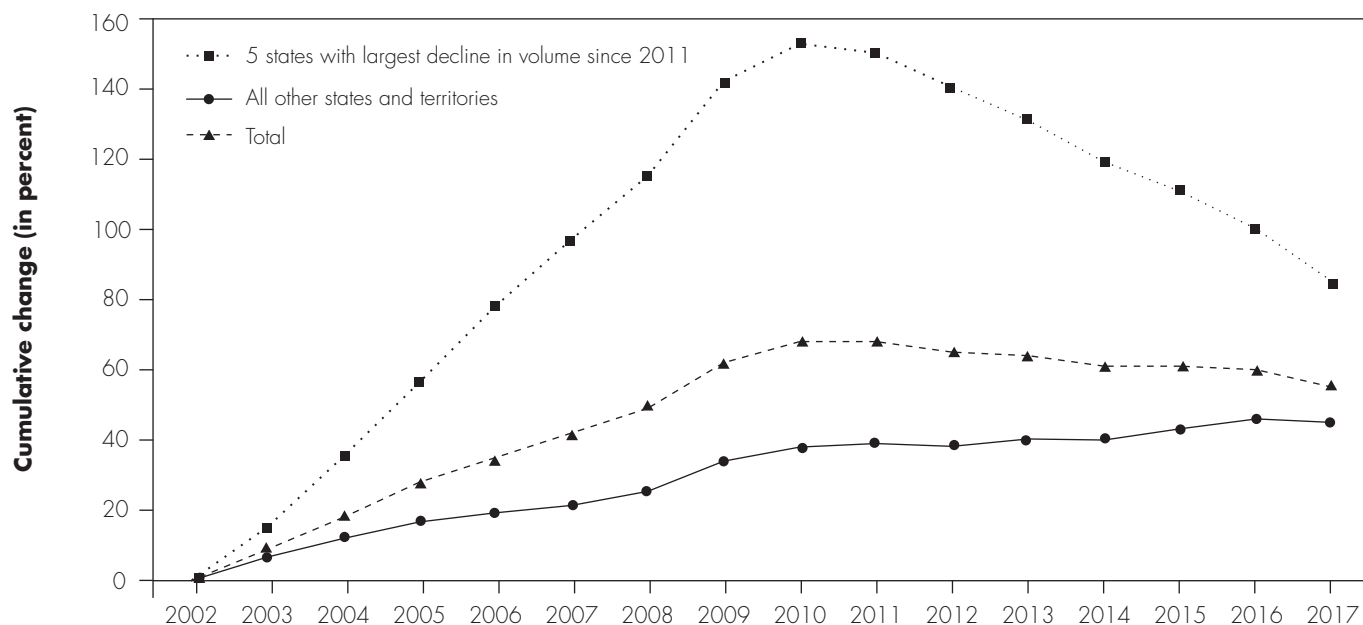
The decline in episode volume since 2011 has not been uniform across the country. Since 2011, Florida, Illinois, Louisiana, Tennessee, and Texas (the five states with the fastest growing episode volume before 2011) have seen a decline of about 25 percent. The remaining 44 states experienced aggregate growth of 4.1 percent, though there was a range of increases and declines across these states. This geographic variation emphasizes that many areas continue to see growth despite the overall drop in episode volume since 2011. The volume decrease in areas that have been targeted by program integrity efforts suggests that these efforts can address excessive or unwarranted services, and the expansion of these efforts to other areas with excessive growth rates would be beneficial.

Home health care spells of service have increased in length and shifted in focus to episodes not preceded by a hospitalization

Between 2002 and 2016, the average number of episodes per user increased by 16 percent, rising from 1.6 to 1.9 episodes per user (Table 9-5). Though the average number of episodes declined slightly in 2017, the trend since 2002

**FIGURE
9-2**

Volume of fee-for-service home health care services have increased significantly since 2002



Note: The five states with the largest decline in volume since 2011 include Florida, Illinois, Louisiana, Tennessee, and Texas.

Source: MedPAC analysis of home health standard analytic file from CMS.

indicates that beneficiaries have been receiving home health care for longer periods. The increase in episodes coincides with Medicare's PPS incentives that encourage additional volume: The per episode unit of payment in the PPS encourages longer periods of home health use (more episodes per beneficiary).

The rise in the average number of episodes per home health user coincides with a relative shift away from using home health care after a hospitalization or institutional PAC service. Between 2001 and 2011, episodes not preceded by a hospitalization or institutional PAC stay increased by about 127 percent, while episodes preceded by a prior PAC stay or hospitalization increased by 14.8 percent (Table 9-6, p. 240). Between 2011 to 2017, the volume of episodes not preceded by a hospital or institutional PAC stay dropped by 11.2 percent, while in the same period, episodes preceded by a hospitalization or PAC stay continued to increase slightly in recent years. However, this increase has not significantly changed the

share of episodes not preceded by inpatient or institutional PAC, which in 2017 accounted for 66 percent of episodes.

Episodes that qualify for additional payment based on therapy services account for an increasing share of volume

Since the October 2000 implementation of the home health PPS, Medicare has used the number of therapy visits as a factor in payment, and, not surprisingly, episodes that qualify for these payments have increased faster than episodes that do not. Under the current PPS, additional therapy visits increase payments once six or more visits are provided in an episode, and the share of these episodes increased between 2008 and 2017 from 37 percent to 49 percent. In past work, the Commission has found that agencies that provide more therapy episodes tend to be more profitable. The higher profitability and rapid growth in the number of these episodes suggest that financial incentives are causing agencies to favor therapy

**TABLE
9-6**

Home health episodes not preceded by hospitalization or PAC stay increased at a higher rate than other episodes

	Episodes			Cumulative percent change	
	2001	2011	2017	2001-2011	2011-2017
Number of episodes preceded by a hospitalization or PAC stay (in millions)	1.9	2.2	2.2	14.8%	2.2%
Number of episodes not preceded by a hospitalization or PAC stay (in millions)	2.1	4.6	4.2	127.4	-11.2
Share of episodes not preceded by a hospitalization or PAC stay	53%	67%	66%	26	-1.5
Total (in millions)	3.9	6.8	6.3	74.0	-7.0

Note: PAC (post-acute care). "Episodes preceded by a hospitalization or PAC stay" indicates the episode occurred fewer than 15 days after a stay in a hospital (including a long-term care hospital), skilled nursing facility, or inpatient rehabilitation facility. "Episodes not preceded by a hospitalization or PAC stay" indicates that there was no hospitalization or PAC stay in the 15 days before the episode began. Numbers may not sum to totals due to rounding.

Source: Home health standard analytical file and Medicare Provider and Analysis Review file for 2001, 2011, and 2017.

services when possible. Consistent with this finding, the Bipartisan Budget Act of 2018 requires CMS to remove therapy visits as a factor in determining payments under the PPS.

New rural payment targets supplemental payments to low-use rural areas

In general, the Commission has not found systemic issues with rural access to care, and Medicare margins of rural HHAs are generally above 10 percent a year, comparable with urban HHAs. Average utilization is not significantly different between HHAs in urban and rural areas, but some variation exists around this average, with high-use and low-use areas found in both urban and rural counties.

The Bipartisan Budget Act of 2018 implemented a 3 percent payment increase for home health episodes provided in rural areas in 2018. For later years, the Act establishes three categories of rural counties and ties the duration and size of the payment add-on for each category to the population density and utilization levels of rural counties. The categories include:

- **High-utilization rural counties**—Services furnished in rural counties in the top quartile of utilization will receive a payment add-on of 1.5 percent in 2019

and one-half percent in 2020. CMS computed the ratio of home health episodes to FFS beneficiaries in 2015 for all counties (both urban and rural); based on this distribution, rural counties with 17.8 or more episodes per 100 beneficiaries were classified as high-utilization areas.

- **Low-population rural counties**—Counties that have a population density of six individuals or fewer per square mile and do not have high utilization are classified as low-population counties and receive a 4 percent add-on in 2019. The add-on will decrease by 1 percentage point each year and end after 2022.
- **All other rural counties**—Rural counties not in either of the above categories will receive a 3 percent add-on in 2019, also decreasing by 1 percentage point each year to end after 2021.

The rural payment add-on policy for 2019 better targets Medicare's scarce resources. The policy targets payments to areas with lower population density and limits payments to rural areas with higher utilization. This policy is consistent with our June 2012 report to the Congress, which noted that Medicare should target rural payment adjustments to areas that may have access challenges.

**TABLE
9-7****Average home health agency performance on select quality measures**

	2014	2015	2016	2017
During an episode, the share of an agency's beneficiaries who:				
Used emergency department care	12.0%	12.2%	12.1%	12.7%
Had to be admitted to the hospital	15.4	15.5	16.2	15.4
Share of an agency's beneficiaries with improvement in:				
Transferring	55%	59%	65%	72%
Walking	61	63	69	74

Note: All data are for fee-for-service beneficiaries only and are risk adjusted for differences in patient condition among home health patients.

Source: MedPAC analysis of data provided by the University of Colorado.

Marginal profits

Another factor we consider when evaluating access to care is whether providers have any financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries.⁶ In 2017, the marginal profit, on average, for freestanding HHAs was 17.5 percent. This substantial marginal profit indicates that these HHAs have an incentive to serve Medicare beneficiaries.

Quality of care: Divergent trends between claims-based and provider-reported measures

The Commission relies on data from two principal sources to measure home health care quality: data from patient assessment information collected by HHA staff, and Medicare claims submitted by HHAs and other provider types.⁷ The Commission has observed that performance for quality measures that rely on claims has not changed significantly in 2014 to 2017, while performance for measures that rely on patient assessment data reported by HHAs has improved significantly. These divergent trends raise concerns about the objectivity of the measures that

rely on patient assessment data, particularly because the measures showing improvement are most sensitive to HHA coding practices. The use of patient assessment data to determine Medicare payments may also distort these data, as in some cases more severe debility in function can yield higher payments.

A comparison of trends for 2014 to 2017 illustrates these concerns (Table 9-7). Measures of hospitalization and emergency department use rely on Medicare claims; these measures indicate mixed or modest changes with no substantial change over this period. In contrast, the rates of beneficiaries' functional improvement have risen substantially, with the share of beneficiaries improving in transferring and walking increasing 17 percentage points and 13 percentage points, respectively, over the four-year period. The higher rates of improvement for the functional measures may reflect agency coding practices and should be interpreted cautiously.

It is also notable that functional improvement data are collected only for beneficiaries who do not have their home health care stays terminated by a hospitalization, which means that beneficiaries included in the measure may be healthier and more likely to have positive outcomes.

Medicare's home health value-based purchasing program had a limited impact in the first year

In 2017, Medicare initiated a value-based purchasing (VBP) model for home health care. The model is designed to test whether HHAs in nine states (Arizona,

Florida, Iowa, Maryland, Massachusetts, Nebraska, North Carolina, Tennessee, and Washington) improve or maintain high quality when they are subject to a VBP incentive. Under the demonstration, HHAs with higher performance receive bonuses, while those with lower scores receive penalties. HHA performance is evaluated against separate improvement and attainment scores, with payment tied to the higher of these two scores. The first payment adjustment was implemented January 1, 2018.

The program determines quality through a composite of 20 measures of process, outcomes, and patient satisfaction. In the first year, performance in 2016 was compared with the prior year. The scores are combined into a composite Total Performance Score (TPS), following an approach similar to that used in the hospital VBP program.

A CMS-contracted report concluded that the impact of the VBP program on quality was mixed in 2017, the first year payments were adjusted under the program. This analysis compared the TPS values for patients served by HHAs in the nine VBP test states with a comparison group of home health patients from other states. The analysis found that TPS values increased in both VBP states and the comparison states, but that the increase in the average TPS value was 7.4 percent greater in the VBP states. The report made a caveat with reference to this result, noting that the higher annual increase for the VBP states was principally attributable to better performance on several process and outcome measures based on the Outcomes Assessment Information Set (OASIS), which are reported by HHAs and not independently verified. The VBP report also noted that several HHAs subject to VBP had revised patient assessment practices in response to the program and that changes in these practices could have contributed to the higher rates of improvement on the OASIS-based measures.

Performance on other measures, which relied on data from Medicare claims or beneficiary surveys, was mixed. Spending on and utilization of skilled nursing facilities declined slightly, but emergency department use increased. There was no statistically significant difference between VBP states and non-VBP states in rates of hospitalization or spending. The analysis also found no statistically meaningful differences between VBP states and non-VBP states for the rates of patient satisfaction collected through the Home Health Consumer Assessment of Healthcare Providers®.

Providers' access to capital: Access to capital for expansion is adequate

In 2017, the overall (all-payer) margins for freestanding HHAs averaged 4.5 percent, indicating that many HHAs yield positive financial results that should appeal to capital markets. HHAs are not as capital intensive as other providers because they do not require extensive physical infrastructure, and most are too small to attract interest from capital markets. Few HHAs access capital through publicly traded shares or through public debt such as issuance of bonds.

Information on publicly traded home health care companies provides some insight into access to capital but has limitations. Publicly traded companies may have other lines of business in addition to Medicare home health care, such as hospice, Medicaid-covered services, and private-duty nursing. Also, publicly traded companies are a small portion of the total number of HHAs in the industry. However, since they are the largest corporate entities in home health care, they can provide some insight about the industry's financial status.

Analysis of for-profit companies indicates that these companies had adequate access to capital in 2017. Publicly traded firms continued to invest in home health capacity. For example, LHC Group merged with Almost Family. Encompass (formerly known as HealthSouth) acquired a multistate hospice and home health company. These capacity-driven expansions by publicly traded companies suggest that access to capital remains adequate.

Medicare payments and providers' costs: Payments rose while cost per episode remained low in 2017

In 2017, average Medicare payments per episode increased by 1.4 percent for freestanding HHAs. Meanwhile, low or no cost growth has been typical for home health care, and in some years, cost per episode has declined. In 2017, the average cost per episode increased by 0.9 percent, slightly greater than the annual decrease of about 0.1 percent for the previous five years. The ability of freestanding HHAs to keep costs low in most years has contributed to their high margins under the Medicare PPS. In 2017, Medicare accounted for about 56 percent of revenue for freestanding HHAs.

Medicare margins for freestanding HHAs remained high in 2017

In 2017, HHA Medicare margins in aggregate were 15.2 percent for freestanding HHAs (Table 9-8). For these

**TABLE
9–8****Medicare margins for freestanding home health agencies, 2016 and 2017**

	Medicare margin		Share of home health agencies, 2017	Share of episodes, 2017
	2016	2017		
All	15.5%	15.2%	100%	100%
Geography				
Majority urban	16.0	15.8	83	84
Majority rural	13.8	13.4	17	16
Type of ownership				
For profit	16.8	16.4	88	79
Nonprofit	12.0	10.9	12	21
Volume quintile				
First (smallest)	8.5	7.4	20	3
Second	10.8	9.8	20	6
Third	11.6	11.5	20	11
Fourth	14.5	13.6	20	19
Fifth (largest)	17.4	17.0	20	62

Note: Home health agencies were classified as majority urban if they provided more than 50 percent of episodes to beneficiaries in urban counties and were classified as majority rural if they provided more than 50 percent of episodes to beneficiaries in rural counties. Components may not sum to totals due to rounding.

Source: MedPAC analysis of home health cost report files from CMS.

HHAs, the aggregate Medicare margins varied from 0.7 percent for those at the 25th percentile of the margin distribution to 24.1 percent for those at the 75th percentile (not shown in Table 9-8). For-profit HHAs had higher margins than nonprofit HHAs, and urban HHAs had slightly higher margins than rural HHAs. Agencies with higher volume had better financial results, likely reflecting the economies of scale possible for larger operations. For example, HHAs in the bottom quintile of Medicare volume had margins of 7.4 percent while HHAs in the top quintile had margins of 17.0 percent.

The Commission includes hospital-based HHAs in its calculation of acute care hospitals' Medicare margins because these agencies operate in the financial context of hospital operations. In 2017, margins for hospital-based HHAs were –16.0 percent. The lower margins of hospital-based HHAs are attributable chiefly to their higher costs, some of which are a result of overhead costs allocated to the HHA from its parent hospital. Hospital-based HHAs

help their parent institutions financially if they can shorten inpatient stays, lowering expenses in the most costly setting.

HHAs' financial performance in 2016 and 2017 permits an examination of the financial impact of the third and fourth years of rebasing under PPACA. In both years, the margins for freestanding HHAs remained high, reflecting the Commission's concerns that the PPACA policy would not make sufficient reductions. The actual performance contrasts starkly with the home health industry's predictions. In 2013, the industry predicted that Medicare margins for freestanding agencies in 2016 would be –0.3 compared with the actual aggregate margins of 15.5 percent.

Relatively efficient HHAs serve patients similar to patients of all other HHAs

Across all health care sectors, the Commission applies a two-step process when identifying efficient providers. First, the providers must do relatively well across cost

**TABLE
9-9****Performance of relatively efficient home health agencies in 2016**

Provider characteristics	All	Relatively efficient providers	All other providers
Number of home health agencies	4,604	318	4,286
Share that are for profit	89%	89%	89%
Median:			
Medicare margin	15.6%	24.4%	15.0%
Hospitalization during first 60 days of stay (percent)	16.5%	14.7%	16.7%
Cost per episode	\$2,409	\$2,056	\$2,445
Patient severity case-mix index	0.99	1.02	0.99
Visits per episode			
Average visits per episode	16.6	15.4	16.8
Share of visits by type			
Skilled nursing visits	47%	47%	48%
Aide visits	8%	7%	8%
MSS visits	1%	1%	1%
Therapy visits	44%	43%	44%
Size (number of 60-day payment episodes)			
Median	504	653	494
Mean	905	1,399	868
Share of episodes			
Low-use episode	8%	9%	8%
Outlier episode	3%	3%	3%
Share of episodes provided to rural beneficiaries	23%	15%	25%

Note: MSS (medical social services). Sample includes freestanding agencies with complete data for three consecutive years (2014–2016). A home health agency is classified as relatively efficient if it is in the best third of performance for quality or cost and is not in the bottom third of either measure for three consecutive years. Low-use episodes are those with 4 or fewer visits in a 60-day episode. Outlier episodes are those that receive a very high number of visits and qualify for outlier payments. Components may not sum due to rounding.

Source: Medicare cost reports and standard analytic file.

and quality metrics. Second, the performance has to be consistent, meaning that the provider cannot have poor performance on any metric over a three-year period. The Commission's approach is to develop a set of criteria and then examine how many providers meet them. It does not establish a set share of providers to be considered efficient and then define criteria to meet that pool size.

We examined the quality and cost efficiency of freestanding HHAs to identify a cohort that demonstrated better performance on these metrics relative to its peers (Table 9-9).⁸ The cost measure was on a per episode

basis, adjusted for risk (patient's health status) and local wages; the quality measures were risk-adjusted rates of hospitalizations and improvement in walking. Our approach categorized an HHA as relatively efficient if it was in the best performing third on at least one measure (low cost per episode, a low hospitalization rate, or a high rate of beneficiaries showing improvement in walking) and was not in the worst performing third of any of these measures for three consecutive years (2014 to 2016). About 7 percent of freestanding HHAs met these criteria in this period.

In 2016, relatively efficient agencies compared with other HHAs had median margins that were about 9 percentage points higher, a median hospitalization rate that was 2 percentage points lower, and a median cost per episode that was 16 percent lower. Relatively efficient HHAs provided more episodes but 1.4 fewer visits per episode. The mix of nursing, therapy, aide, and social services visits did not differ significantly between relatively efficient and other HHAs. Efficient providers tended to provide fewer episodes in rural areas.

The Commission estimates that Medicare margins will remain high in 2019

In modeling 2019 payments and costs, we incorporate policy changes that will go into effect between the year of our most recent data, 2017, and the year for which we are making the margin projection, 2019. The major changes are:

- a 1 percent payment update for 2018 offset by a 0.97 percent coding adjustment,
- a 2.2 percent payment update for 2019,
- assumed nominal case-mix growth of 0.5 percent in 2018 and 2019,
- rural add-on for 2018 and 2019, and
- assumed episode cost growth of 1 percent per year.

On the basis of these policies and assumptions, the Commission projects a margin of 16.0 percent in 2019.

How should Medicare payments change in 2020?

Our review of payment adequacy for Medicare home health service indicates that access is more than adequate in most areas and that Medicare payments are substantially in excess of costs. On the basis of these findings, the Commission has concluded that home health payments should be significantly reduced. Though PPACA included a provision intended to lower payments, the impact of this provision has been modest, and substantial margins for many agencies are likely to remain.

Home health care can be a high-value benefit when it is appropriately and efficiently delivered. Medicare beneficiaries often prefer to receive care at home instead

of in institutional settings, and home health care can be provided at lower costs than institutional care. However, Medicare's payments for home health services are too high, and these overpayments diminish the service's value as a substitute for more costly services. There are also some indications that utilization under fee-for-service is not always efficient, as suggested by the broad geographic variation in the use of the benefit. In another example, a recent analysis of home health care utilization in the Medicare's Shared Savings Program found that utilization dropped significantly for patients enrolled in a Medicare accountable care organization (McWilliams et al. 2017).

The Bipartisan Budget Act of 2018 requires that the policy changes implemented in 2020 be budget neutral and provides CMS with the authority to adjust payments in 2020 through 2026 to maintain budget neutrality. CMS has projected that behavioral responses by HHAs to the new policies will increase payments by 6.42 percent in 2020 (about \$1 billion), and the agency plans to implement an offsetting percentage reduction in 2020. This reduction is necessary to offset the spending increase expected in 2020 resulting from the behavioral changes; it does not reflect any assessment of the adequacy of Medicare's payments. Further reductions are necessary to better align payments with the costs of services.

RECOMMENDATION 9

For 2020, the Congress should reduce the calendar year 2019 Medicare base payment rate for home health agencies by 5 percent.

RATIONALE 9

An immediate reduction of 5 percent in 2020 would represent a significant action to address the magnitude of the overpayments embedded in Medicare's rates. However, this reduction will likely be inadequate to align Medicare payments with providers' actual costs, and further reductions will likely be necessary. In past years, the Commission has recommended that payments be rebased in the year following a payment rate reduction. However, given the congressionally mandated revisions to the home health PPS that are slated for 2020, our recommendation for 2020 addresses only the level of payment. The planned revisions to the home health PPS will likely change the mix of services and number of visits provided in an episode, and the payment rate set under a rebasing policy should reflect the mix and level of services HHAs provide under the new payment policies. These data will not be available until mid-2021.

Spending

- The payment reductions would lower payments relative to current law by \$750 million to \$2 billion in 2020 and by \$5 billion to \$10 billion over five years.

Beneficiary and provider

- Beneficiaries' access to care should not be affected. Lowering payments should not affect providers' willingness to deliver appropriate home health care. ■

Endnotes

- 1 Freestanding providers accounted for about 90 percent of the episodes provided in 2017.
- 2 Payment updates are typically intended to address annual increases in provider costs (e.g., salary increases or higher prices for other inputs). However, during this period the cost of a home health episode did not increase substantially. In recent years, annual cost growth has averaged less than 1 percent, with some years experiencing no growth or decreases in cost.
- 3 The average payment in 2017 was \$3,030.
- 4 As of November 2018, our measure of access is based on data collected and maintained as part of CMS's Home Health Compare database. The service areas listed are postal ZIP codes where an HHA has provided services in the past 12 months. This definition may overestimate access because HHAs need not serve the entire ZIP code to be counted as serving it. At the same time, the definition may understate access if HHAs are willing to serve a ZIP code but did not receive a request in the previous 12 months. The analysis excludes beneficiaries with unknown ZIP codes.
- 5 Medicare makes a case-mix-adjusted 60-day episode payment when more than 4 visits are provided. Low-utilization payment adjustment episodes with four or fewer visits are paid on a per visit basis.
- 6 If we approximate marginal cost as total Medicare costs minus fixed building and equipment costs, then marginal profit can be calculated as follows:

$$\text{Marginal profit} = (\text{Medicare payments} - (\text{total Medicare costs} - \text{fixed costs})) \div \text{Medicare payments}$$

This comparison is a lower bound on the marginal profit because we do not consider any potential labor costs that are fixed.
- 7 Medicare collects home health quality data for both fee-for-service and Medicare Advantage beneficiaries. However, the program's publicly reported measures present aggregate results that do not distinguish between the two programs.
- 8 The sample for this analysis is derived from the larger sample of freestanding HHA cost reports used to calculate margins in Table 9-8 (p. 243). Of these agencies, 5,147 of them had three years of cost report data necessary for the analysis (2014 through 2016), while 543 agencies did not have quality data necessary to identify an efficient provider.

References

- Benjamin, A. E. 1993. An historical perspective on home care policy. *Milbank Quarterly* 71, no. 1: 129–166.
- Cheh, V., N. Duda, B. L. Carlson, et al. 2007. *Evaluation of the Home Health Independence Demonstration: Barriers to a successful experiment were multifaceted and difficult policy issues remain*. Prepared for the Centers for Medicare & Medicaid Services. Princeton, NJ: Mathematica Policy Research Inc. October.
- Department of Health and Human Services. 2018. *2017 Medicare fee-for-service supplemental improper payment data*. Washington, DC: HHS.
- Feder, J., and J. Lambrew. 1996. Why Medicare matters to people who need long-term care. *Health Care Financing Review* 18, no. 2 (Winter): 99–112.
- Government Accountability Office. 2018. *Medicare: CMS should take actions to continue prior authorization efforts to reduce spending*. HEHS–18–341. Washington, DC: GAO.
- Government Accountability Office. 1996. *Medicare: Home health utilization expands while program controls deteriorate*. GAO/HEHS–96–16. Washington, DC: GAO.
- McCall, N., J. Korb, A. Petersons, et al. 2004. Decreased home health use: Does it decrease satisfaction? *Medical Care Research and Review* 61, no. 1 (March): 64–88.
- McCall, N., A. Petersons, S. Moore, et al. 2003. Utilization of home health services before and after the Balanced Budget Act of 1997: What were the initial effects? *Health Services Research* 38, no. 1 part 1 (February): 85–106.
- McWilliams, J. M., L. G. Gilstrap, D. G. Stevenson, et al. 2017. Changes in postacute care in the Medicare Shared Savings Program. *JAMA Internal Medicine* 177, no. 4 (April 1): 518–526.
- Medicare Payment Advisory Commission. 2011. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2010. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2004. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Office of Inspector General, Department of Health and Human Services. 2001. *The physician's role in Medicare's home health services*. OEI–02–00–00620. Washington, DC: OIG.
- Office of Inspector General, Department of Health and Human Services. 1996. *Review of Medicare home health services in California, Illinois, New York, and Texas*. A–04–96–2121. Washington, DC: OIG.
- U.S. Senate Committee on Finance. 2011. *Staff report on home health and the Medicare therapy threshold*. Washington, DC: Government Printing Office.
- Wolff, J., A. Meadow, C. Weiss, et al. 2008. Medicare home health and the role of physicians. Presentation at Academy Health, Medicare and Post-Acute Care. June 8.

C H A P T E R

10

Inpatient rehabilitation facility services

R E C O M M E N D A T I O N

- 10** For 2020, the Congress should reduce the fiscal year 2019 Medicare base payment rate for inpatient rehabilitation facilities by 5 percent.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

.....
(Additionally, the Commission reiterates its March 2016 recommendations on the inpatient rehabilitation facility prospective payment system. See text box, p. 261.)

Inpatient rehabilitation facility services

Chapter summary

Inpatient rehabilitation facilities (IRFs) provide intensive rehabilitation services to patients after illness, injury, or surgery. Rehabilitation programs are supervised by rehabilitation physicians and include services such as physical and occupational therapy, rehabilitation nursing, speech–language pathology, and prosthetic and orthotic services. In 2017, Medicare spent \$7.9 billion on IRF care provided to fee-for-service (FFS) beneficiaries in about 1,180 IRFs nationwide. About 340,000 beneficiaries had around 380,000 IRF stays. On average, the Medicare FFS program accounted for 58 percent of IRF discharges.

Assessment of payment adequacy

Our indicators of Medicare payment adequacy for IRFs are positive.

Beneficiaries’ access to care—Our analysis of IRF supply and volume of services provided and of IRFs’ marginal profit under Medicare’s IRF prospective payment system suggest that access remains adequate.

- **Capacity and supply of providers**—After declining for several years, the number of IRFs increased in 2014 and continued to grow through 2016, reaching 1,188 facilities nationwide. In 2017, however, the number of IRFs declined slightly, to 1,178 facilities. Over time, the number of hospital-based and nonprofit IRFs has declined, while the number

In this chapter

- Are Medicare payments adequate in 2019?
.....
- How should Medicare payments change in 2020?
.....

of freestanding and for-profit IRFs has increased. In 2017, the average IRF occupancy rate remained at 65 percent, indicating that capacity is more than adequate to meet demand for IRF services.

- **Volume of services**—From 2016 to 2017, the number of Medicare FFS cases declined 2.7 percent, falling to about 380,000 cases after having experienced small annual growth every year since 2010.
- **Marginal profit**—The marginal profit, an indicator of whether IRFs with excess capacity have an incentive to treat more Medicare beneficiaries, was 19.4 percent for hospital-based IRFs and 38.8 percent for freestanding IRFs—a very positive indicator of patient access.

Quality of care—The Commission tracks three broad categories of IRF quality indicators: risk-adjusted facility-level change in patients' functional and cognitive status during the IRF stay, rates of discharge to the community and to skilled nursing facilities, and rates of readmission to an acute care hospital. Most measures were steady or improved between 2012 and 2017.

Providers' access to capital—The parent institutions of hospital-based IRFs continue to have good access to capital. The major freestanding IRF chain, which accounted for almost half of freestanding IRFs in 2017 and about a quarter of all Medicare IRF discharges, also has good access to capital. This assessment is reflected in the chain's continued expansion. We were not able to determine the ability of other freestanding facilities to raise capital. IRFs' access to capital in large part depends on their total (all-payer) profitability, and in 2017, total margins for freestanding IRFs were 10.4 percent. Data on all-payer profitability are not available for hospital-based units, but we can examine the all-payer margins of hospitals with IRF units, which, in 2017, had an aggregate all-payer margin across all lines of business of 7.0 percent.

Medicare payments and providers' costs—The aggregate Medicare margin for IRFs has grown steadily since 2009. In the three-year period between 2015 and 2017, the aggregate IRF Medicare margin remained above 13 percent and in 2017 stood at 13.8 percent. Also in 2017, Medicare margins in freestanding IRFs were 25.5 percent, down slightly from their peak in 2015 of 26.7 percent. In 2017, hospital-based IRF margins were comparatively low at 1.5 percent, but one-quarter of hospital-based IRFs had Medicare margins greater than 11 percent, indicating that many hospitals can manage their IRF units profitably. Lower margins in hospital-based IRFs were driven largely by higher unit costs. In addition, there are notable differences in hospital-based and freestanding IRFs' mix of cases, which may indicate differences in profitability across case types. Finally, while

not definitive, evidence indicates that IRFs' assessments of patients' motor and cognitive function are not reliably consistent across providers. To the extent that hospital-based IRFs routinely assess their patients as less disabled than do their freestanding counterparts, their payments—and margins—will be systematically lower.

Growth in IRFs' costs historically has been low. From 2009 to 2015, the cumulative growth in cost per discharge was 8.4 percent, well below the 13.5 percent increase in the market basket for IRFs over the period. In 2016, per case cost growth (3.6 percent in aggregate) exceeded payment growth (2.9 percent in aggregate) for the first time since 2008. In 2017, however, per case payments again grew faster than costs (3.4 percent compared with 2.8 percent), resulting in an aggregate IRF margin of 13.8 percent. In 2018 to 2019, we anticipate costs in IRFs will grow faster than payments since updates in those years were constrained to 1.0 percent and 1.35 percent, respectively. For 2019, we project an aggregate Medicare margin of 11.6 percent.

This year, the Commission for the first time examined the financial performance of relatively efficient IRFs. Our analysis found that relatively efficient IRFs performed better on quality metrics and had costs 18 percent lower than other IRFs. Relatively efficient IRFs were on average larger and had higher occupancy rates, contributing to greater economies of scale and lower costs. Freestanding and for-profit facilities were more likely to be in the relatively efficient group.

On the basis of these factors, the Commission recommends a 5 percent reduction to the IRF payment rate for fiscal year 2020. In addition, the Commission reiterates its March 2016 recommendations that (1) the high-cost outlier pool be expanded to further redistribute payments in the IRF payment system and reduce the impact of misalignments between IRF payments and costs and (2) the Secretary conduct focused medical record review of IRFs that have unusual patterns of case mix and coding and conduct other research necessary to improve the accuracy of payments and protect program integrity. ■

Background

After illness, injury, or surgery, some patients need intensive, inpatient rehabilitative care, including physical, occupational, and speech therapy. Such services can be provided in inpatient rehabilitation facilities (IRFs).¹ IRFs must be primarily focused on treating conditions that typically require intensive rehabilitation, among other requirements. IRFs can be freestanding facilities or specialized units within acute care hospitals. To qualify for a covered IRF stay, a beneficiary must be able to tolerate and benefit from intensive therapy and must have a condition that requires frequent and face-to-face supervision by a rehabilitation physician. Other patient admission criteria also apply. In 2017, Medicare spent \$7.9 billion on IRF care provided in about 1,180 IRFs nationwide. About 340,000 beneficiaries had almost 380,000 IRF stays. On average, Medicare fee-for-service (FFS) beneficiaries accounted for about 58 percent of IRF discharges.

Since January 2002, Medicare has paid IRFs under a per discharge prospective payment system (PPS).² Under the IRF PPS, Medicare patients are assigned to case-mix groups (CMGs) based on the patient's primary reason for inpatient rehabilitation, age, and level of motor and cognitive function. Within each of these CMGs, patients are further categorized into one of four tiers based on the presence of certain comorbidities that have been found to increase the cost of care. Each CMG tier has a designated weight that reflects the group's average relative costliness of cases compared with that of the average Medicare IRF case.³ The CMG weight is multiplied by a base payment rate and then adjusted to reflect geographic differences in the wages IRFs pay. The payment is further adjusted based on the IRF's share of low-income patients. Additional adjustments are made for IRFs that are teaching facilities and for IRFs located in rural areas. The IRF PPS also has outlier payments for patients who are extraordinarily costly. Starting in fiscal year 2020, CMS is changing the patient assessment instrument used to help classify patients for payment, shifting from IRF-specific measures of motor and cognitive function to measures that are standardized across post-acute care (PAC) settings. The changes to the assessment instruments will necessitate minor adjustments of the CMG definitions (see text box, pp. 256–257).

Medicare facility requirements for IRFs

To qualify as an IRF for Medicare payment, facilities must meet the Medicare conditions of participation for acute care hospitals. They must also:

- have a preadmission screening process to determine that each prospective patient is likely to benefit significantly from an intensive inpatient rehabilitation program;
- ensure that the patient receives close medical supervision and provide—through qualified personnel—rehabilitation nursing, physical therapy, occupational therapy, and, as needed, speech–language pathology and psychological (including neuropsychological) services, social services, and orthotic and prosthetic services;
- have a medical director of rehabilitation with training or experience in rehabilitation who provides services in the facility on a full-time basis for freestanding IRFs or at least 20 hours per week for hospital-based IRF units;
- use a coordinated interdisciplinary team led by a rehabilitation physician that includes a rehabilitation nurse, a social worker or case manager, and a licensed therapist from each therapy discipline involved in the patient's treatment;
- have a plan of treatment for each patient that is established, reviewed, and revised as needed by a physician in consultation with other professional personnel who provide services to the patient; and
- meet the compliance threshold, which requires that no less than 60 percent of patients admitted to an IRF have as a primary diagnosis or comorbidity at least 1 of 13 conditions specified by CMS.⁴ The intent of the compliance threshold is to distinguish IRFs from acute care hospitals. If an IRF does not meet the compliance threshold, Medicare pays for all its cases on the basis of the inpatient hospital PPS rather than the IRF PPS.

Medicare coverage criteria for beneficiaries

Medicare applies additional criteria that govern whether IRF services are covered for an individual Medicare beneficiary.⁵ For an IRF claim to be considered reasonable and necessary, the patient must be reasonably expected to meet the following requirements at admission:

Changes to the IRF assessment instrument and case-mix groups in fiscal year 2020

Under the inpatient rehabilitation facility (IRF) prospective payment system (PPS), for purposes of payment, patients are assigned to rehabilitation impairment categories (RICs) based on the principal diagnosis or primary reason for inpatient rehabilitation. Within each RIC, patients are sorted into case-mix groups (CMGs) based on the patient's level of motor and cognitive function at admission and then further categorized into one of four tiers based on the presence of specific comorbidities that have been found to increase the cost of care.

To determine the appropriate CMG, IRFs assess and score each patient's motor and cognitive function using the IRF–Patient Assessment Instrument (IRF–PAI). The IRF–PAI is based on a modified version of the Uniform Data System for Medical Rehabilitation patient assessment instrument, commonly referred to as the Functional Independence Measure™, or FIM™. The IRF–PAI's 18 FIM data elements and associated modifiers, along with the FIM measurement scale, are used to measure a patient's level of disability and the burden of care for a patient's caregivers. (All else equal, a greater level of disability generally results in a higher payment.)

The IRF–PAI also includes items that are standardized across post-acute care (PAC) settings and are used to collect information on a patient's motor and cognitive function for the IRF Quality Reporting Program (QRP). As shown in Table 10-1, the QRP items are very similar to the FIM elements and associated modifiers. Because the QRP elements overlap the FIM data elements, CMS believes that the collection of FIM elements and associated modifiers is no longer necessary and places undue burden on providers. Accordingly, in fiscal year 2020, CMS will remove the FIM elements and associated modifiers from the IRF–PAI and will rely on QRP items to assign cases to CMGs.

Because the QRP items are defined differently from the FIM elements and use a different scale of measurement, using QRP items for CMG assignment will require some revisions to the CMG classification system. However, CMS anticipates the similarity

between and overlap of the FIM and QRP items mean that CMS can replace FIM elements with QRP items without materially changing the case-mix classification system. All other aspects of the classification system will be unchanged, including the RIC structure, the assignment of comorbidity tiers, and the methodology for calculating the payment weights. The CMG classification system will continue to have 21 RICs (plus 2 for patients who have very short stays or who die in the IRF). However, the revisions will result in some consolidation of CMGs so that, instead of 92 CMGs, there will be 88. At the RIC level, the changes to the payment weights will be relatively small.

CMS plans to implement these revisions in a budget-neutral manner. CMS's initial analysis indicates that the change will redistribute payments across providers, resulting in increased aggregate payments for hospital-based and nonprofit IRFs as well as for smaller IRFs. This projected shift in payments suggests that assessments of patients' motor and cognitive function are not completely consistent across the two sets of data elements; that is, a patient's FIM function scores are not entirely predictive of the patient's QRP function scores.

One potential reason for these differences is that the FIM score is intended to reflect the patient's "lowest" level of function during the time of assessment, whereas the QRP score is intended to measure the patient's "usual" functional level during the period of assessment. In addition, functional status data are generally obtained by observation of the patient and are somewhat subjective. Moreover, the FIM scores are used to determine payment to IRFs, while the QRP scores have had no effect on payment to date. Because payment is materially affected by patients' FIM scores at admission—with higher payments associated with lower functional status—providers have a financial incentive when scoring the FIM elements to minimize patients' assessed levels of function at admission. No such incentive has existed for QRP scoring. However, that situation will change when CMS begins to use QRP scores to determine payment.

(continued next page)

Changes to the IRF assessment instrument and case-mix groups in fiscal year 2020 (cont.)

In a comment letter to the Secretary, the Commission supported replacing FIM items and modifiers with QRP items because doing so would relieve providers of having to report this information on functional status twice, using different definitions and measurement scales (Medicare Payment Advisory Commission 2018). Further, Section 1899(b)(3) of the Improving Medicare Post-Acute Care Transformation Act of 2014 requires the Secretary to replace existing setting-specific patient assessment data that duplicate or overlap the required

PAC-standardized data “as soon as practicable.” At the same time, moving toward an IRF classification system that adjusts payments using data elements that are standardized across all PAC settings is a necessary step toward a unified PAC PPS. The Commission noted, however, that once the QRP scores are used to determine payment, providers likely will respond quickly, devoting resources to improving the coding of the QRP functional measures, altering their QRP scoring practices, or both. ■

**TABLE
10-1**

Selected FIM™ elements and QRP counterparts on the IRF-PAI

	FIM	QRP
Self-care: Eating	<i>FIM item A</i> —The use of suitable utensils to bring food to the mouth, chewing and swallowing, once the meal is presented in the customary manner on a table or tray.	<i>GG130-A</i> —The ability to use suitable utensils to bring food to the mouth and swallow food once the meal is placed before the patient.
Self-care: Bathing	<i>FIM item C</i> —Washing, rinsing, and drying the body from the neck down (excluding the back) in either a tub, shower, or sponge/bed bath.	<i>GG130-E</i> —The ability to bathe self in shower or tub, including washing, rinsing, and drying self.
Self-care: Dressing upper body	<i>FIM item D</i> —Dressing and undressing above the waist, as well as applying and removing a prosthesis or orthosis when applicable.	<i>GG130-F</i> —The ability to put on and remove shirt or pajama top; includes buttoning, if applicable.
Self-care: Toileting	<i>FIM item F</i> —Maintaining perineal hygiene and adjusting clothing before and after using a toilet, commode, bedpan, or urinal.	<i>GG130-C</i> —The ability to maintain perineal hygiene, adjust clothes before and after using the toilet, commode, bedpan, or urinal.
Transfers: Bed, chair, wheelchair	<i>FIM item I</i> —All aspects of transferring from bed to a chair, or wheelchair, or coming to a standing position, if walking is the typical mode of locomotion.	<i>GG170-D</i> —The ability to come to a standing position from sitting in a chair, or on the side of the bed. <i>GG170-E</i> —The ability to safely transfer to and from a bed to a chair (or wheelchair).
Transfers: Toilet	<i>FIM item J</i> —Includes safely getting on and off a standard toilet.	<i>GG170-F</i> —The ability to safely get on and off a toilet or commode.
Locomotion: Walk	<i>FIM item L</i> —Ability to/level of assistance needed to walk 150 feet.	<i>GG170-K</i> —Once standing, the ability to walk at least 150 feet in a corridor or similar space.

Note: FIM™ (Functional Independence Measure™), QRP (Quality Reporting Program), IRF-PAI (Inpatient Rehabilitation Facility–Patient Assessment Instrument).

Source: CMS, Inpatient Rehabilitation Facility–Patient Assessment Instrument, Version 1.5.

**TABLE
10-2**

The number and share of FFS IRF cases with neurological conditions and brain injury continued to grow, 2004–2017

Condition	Share of IRF Medicare FFS cases				Meets compliance threshold ^a	Percentage point change		
	2004	2008	2016	2017		2004–2008	2008–2016	2016–2017
Stroke	16.6%	20.4%	20.2%	20.5%	yes	3.8	–0.2	0.2
Other neurological conditions	5.2	8.0	13.6	15.0	yes	2.9	5.6	1.3
Fracture of the lower extremity	13.1	16.0	10.9	10.4	yes	3.0	–5.2	–0.4
Debility	6.2	9.1	10.6	10.6	no	2.9	1.5	0.0
Brain injury	3.9	7.0	9.9	10.7	yes	3.0	2.9	0.8
Other orthopedic conditions	5.2	6.1	8.2	7.9	no	0.9	2.1	–0.2
Cardiac conditions	5.3	4.6	6.0	5.5	no	–0.6	1.4	–0.3
Major joint replacement of lower extremity	24.1	13.1	5.4	4.4	^b	–11.0	–7.7	–1.1
Spinal cord injury	4.2	4.3	4.9	4.9	yes	0.1	0.6	0.0
All other	16.3	11.3	10.1	9.8	^c	–5.0	–1.1	–0.3

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility). “Other neurological conditions” includes multiple sclerosis, Parkinson’s disease, polyneuropathy, and neuromuscular disorders. “Fracture of the lower extremity” includes hip, pelvis, and femur fractures. Patients with debility have generalized deconditioning not attributable to other conditions. “Other orthopedic conditions” excludes fractures of the hip, pelvis, and femur, and hip and knee replacements. “All other” includes conditions such as amputations, arthritis, and pain syndrome. All Medicare FFS IRF cases with valid patient assessment information were included in this analysis. Yearly figures presented in the table are rounded, but figures in the percentage point change columns were calculated using unrounded data.

^aThe compliance threshold requires that at least 60 percent of an IRF’s patients have 1 of 13 specified diagnoses or have a comorbidity that could cause significant decline in functional ability such that the patient requires intensive rehabilitation. Some FFS cases with conditions that do not meet the compliance threshold could thus be counted toward the threshold if they had certain comorbidities.

^bCases admitted for rehabilitation after major joint replacement of the lower extremity count toward the compliance threshold if joint replacement was bilateral, if the patient had a body mass index of 50 or greater, or if the patient was age 85 or older.

^cConditions in the “all other” category that meet the compliance threshold include congenital deformity, lower-limb amputations, major multiple trauma, burns, and certain arthritis cases.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

- The patient requires active and ongoing therapy in at least two modalities, one of which must be physical or occupational therapy.
- The patient can actively participate in and benefit from intensive therapy that most typically consists of three hours of therapy a day at least five days a week.
- The patient is sufficiently stable at the time of admission to actively participate in the intensive rehabilitation program.
- The patient requires supervision by a rehabilitation physician. This requirement is satisfied by face-to-face physician visits with a patient at least three days a week.

Patterns of use in IRFs

In 2004, CMS began to consistently enforce the IRF compliance threshold and enacted revisions to some of the qualifying conditions.⁶ The combination of renewed enforcement of the threshold and additional restrictions resulted—as intended—in a substantial decline in the volume of Medicare patients treated in IRFs. By 2008, the number of IRF discharges had fallen 26 percent, with the biggest declines seen in the number of medically complex (–73 percent), arthritis (–68 percent), and hip and knee replacement (–60 percent) cases. Average case-mix severity and cost per case increased as IRFs shifted their mix of cases to conditions that count toward the threshold, such as stroke, brain injury, and other neurological conditions (Table 10-2). IRF volume stabilized after 2008, but increases in certain neurological

**TABLE
10-3****Mix of Medicare FFS IRF cases differed by provider type, selected conditions, 2017**

Condition	Freestanding		Hospital based	
	For profit	Nonprofit	For profit	Nonprofit
Stroke	16%	26%	20%	26%
Other neurological conditions	21	8	13	10
Fracture of the lower extremity	9	8	13	11
Debility	11	8	12	10
Brain injury	10	12	11	11
Other orthopedic conditions	10	7	6	6

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility). "Other neurological conditions" includes multiple sclerosis, Parkinson's disease, polyneuropathy, and neuromuscular disorders. "Fracture of the lower extremity" includes hip, pelvis, and femur fractures. Patients with debility have generalized deconditioning not attributable to other conditions. "Other orthopedic conditions" excludes fractures of the hip, pelvis, and femur, and hip and knee replacements. All Medicare FFS IRF cases with valid patient assessment information were included in this analysis.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

conditions—Parkinson's disease and neuromuscular disorders—continued. Between 2008 and 2017, the number of IRF discharges with other neurological conditions almost doubled, climbing 99 percent, and the number of discharges with brain injuries (traumatic and nontraumatic combined) rose 63 percent, while the total number of Medicare IRF discharges increased 6 percent (data not shown). Notably, the number of cases with other orthopedic conditions, cardiac conditions, and debility also rose, though a sizable share of these cases do not count toward the compliance threshold.⁷ The number of hip and knee replacement cases going to IRFs continued their downward trajectory, declining an additional 55 percent from 2008 to 2016. IRFs also saw a large decline in cases for fractures of the lower extremity, falling 26 percent over the same period, even though they count toward the compliance threshold.

The distribution of case types differs by type of IRF (Table 10-3). For example, in 2017, only 16 percent of cases in freestanding for-profit IRFs were admitted for rehabilitation following a stroke, compared with 26 percent of cases in hospital-based nonprofit IRFs. Likewise, 21 percent of cases in freestanding for-profit IRFs were admitted with other neurological conditions, more than twice the share admitted to hospital-based nonprofit IRFs. Cases with other orthopedic conditions also made up a higher share of cases in freestanding for-profit facilities than in all other IRFs. By contrast, the

share of cases with brain injury or debility was similar across IRF types.

In 2017, 8.5 percent of IRF cases received high-cost outlier payments, although the share varied by case type. For example, high-cost outlier cases accounted for 12.6 percent of spinal cord injury cases, 10.7 percent of stroke cases, 6.3 percent of cases with other neurological conditions, and 5.2 percent of other orthopedic conditions. Outlier cases were also distributed unevenly among IRFs. High-cost outliers accounted for almost 15 percent of hospital-based IRF cases compared with 2.6 percent of freestanding IRF cases. On average, high-cost outliers had an average length of stay that was 7.3 days longer than non-outlier cases (19.4 days vs. 12.1 days). Outlier cases were also more likely to have comorbidities that increased case mix (65.6 percent of outlier cases vs. 55.1 percent for non-outlier cases).

High-margin IRFs have a different mix of cases

A previous Commission analysis of differences in the mix of cases across IRFs suggested that patient selection contributes to provider profitability (Medicare Payment Advisory Commission 2016). We found that IRFs with the highest margins in 2013 had a higher share of other neurological cases and a lower share of stroke cases.⁸ Further, we observed differences in the types of stroke

and other neurological conditions admitted to high-margin and low-margin IRFs. Stroke cases in the highest margin IRFs were two-and-a-half times more likely than those in the lowest margin IRFs to have no paralysis. Likewise, other neurological cases in the highest margin IRFs were almost three times more likely than those in the lowest margin IRFs to have a neuromuscular disorder (such as amyotrophic lateral sclerosis or muscular dystrophy) as opposed to neurological conditions like multiple sclerosis or Parkinson's disease.

As noted in our March 2016 report to the Congress, these findings suggest that, under the IRF PPS, some case types are more profitable than others. The Commission plans to assess variation in costs among the IRF CMGs and differences in relative profitability across CMGs in future analyses. It is necessary to identify and reduce variation in costs among CMGs and properly calibrate payments with costs for each group to avoid overpayments and reduce financial incentives for providers to admit certain types of cases and avoid others. In the short term, the Commission has recommended that the Secretary effect changes to reduce potential misalignments between IRF payments and costs by redistributing payments within the IRF PPS through the high-cost outlier pool (see text box on March 2016 recommendations). Expanding the outlier pool would increase outlier payments for the most costly cases, easing the financial burden for IRFs that have a relatively high share of these cases.

Data suggest patients not assessed uniformly across IRFs

A previous Commission analysis of acute care hospital claims data and data from the Inpatient Rehabilitation Facility–Patient Assessment Instrument (IRF–PAI), while not definitive, strongly suggests that IRFs differ in their assessment of patients' motor and cognitive function, raising more generalized concerns about patient assessment data (Medicare Payment Advisory Commission 2016).

Overall, when we compared patients in high-margin and low-margin IRFs, we found that patients in high-margin IRFs were less severely ill and resource intensive during the acute care hospitalization that preceded the IRF stay:

- Patients in high-margin IRFs had, on average, a lower case-mix index in the acute care hospital as well as a lower level of severity of illness and a shorter length of stay.

- Patients in high-margin IRFs were less likely to have been high-cost outliers in the acute care hospital or to have spent four or more days in the hospital intensive care or coronary care unit.

But once patients were admitted to and assessed by the IRF, the average patient profile changed, with patients treated in high-margin IRFs appearing to be more disabled than those in low-margin IRFs (as measured by motor impairment scores assigned by IRFs). This pattern persisted across case types.

As noted in our March 2016 report to the Congress, the consistent finding that high-margin IRFs have patients who are, on average, less severely ill in the acute care hospital but appear more functionally disabled upon assessment in the IRF suggests that assessment and scoring practices contribute to greater profitability in some IRFs, especially given the comparatively low level of costs and cost growth observed in high-margin facilities. If providers differ in their assessment and scoring of patients' motor and cognitive function, payments will not be properly aligned with the resource needs of patients. Some IRFs will receive payments that are too high relative to the costs incurred in treating their patients, while other IRFs will receive payments that are too low.

These findings led the Commission to recommend that CMS ensure payment accuracy and help improve program integrity by reviewing medical records and conducting other research as necessary (see text box on March 2016 recommendations). More recently, the Commission has begun to explore data integrity issues related to post-acute care (PAC) patient assessment data more broadly, and we expect to evaluate whether such data can continue to be used in Medicare's payment systems or quality incentive programs.

Are Medicare payments adequate in 2019?

To assess whether payments for fiscal year 2019 are adequate to cover the costs providers incur and how much providers' costs are expected to change in the coming year (2020), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries' access to care by examining the capacity and supply of IRFs and changes over time in the volume of services provided, quality of care, providers' access to capital, and the relationship between Medicare payments and providers' costs.

The Commission reiterates its March 2016 recommendations on the IRF prospective payment system

Recommendation 9-2

The Secretary should conduct focused medical record review of inpatient rehabilitation facilities that have unusual patterns of case mix and coding.

Rationale 9-2

The Commission's finding that high-margin inpatient rehabilitation facilities (IRFs) have patients who are, on average, less severely ill in the acute care hospital but appear more functionally disabled in the IRF suggests the possibility that coding practices contribute to greater profitability in some IRFs. Providers may differ in their assessment of patients' motor and cognitive function, resulting in payments for some IRFs that are too high relative to the costs incurred in treating their patients. To improve the accuracy of payments and protect program integrity, CMS should review medical records merged with IRF patient assessment data, reassess inter-rater reliability across IRFs, and conduct other research as necessary. Because medical record review is resource intensive, CMS should begin by focusing on providers that have an atypical mix of cases, such as a high concentration of neuromuscular disorders and stroke cases without paralysis, and on providers that have anomalous patterns of coding, such as wide discrepancies in their patients' levels of severity as coded in the acute care hospital compared with that coded in the IRF. However, system-wide assessment of payment accuracy is also needed.

Implications 9-2

Spending

- Implementing this recommendation could result in changes to the payment system that would be budget neutral but could also reduce Medicare's spending on IRF services if CMS were to make payment adjustments to account for assessment and coding differences across providers or for coding changes that do not reflect real case-mix change. CMS would incur some administrative expenses to conduct these activities.

Beneficiary and provider

- We do not expect this recommendation to have adverse effects on Medicare beneficiaries with respect to access to care or out-of-pocket spending or on providers' willingness and ability to care for Medicare beneficiaries.

Recommendation 9-3

The Secretary should expand the inpatient rehabilitation facility outlier pool to redistribute payments more equitably across cases and providers.

Rationale 9-3

The Commission's finding that high-margin IRFs may be selecting certain types of cases suggests that some case-mix groups (CMGs) may be more profitable than others. At the same time, our finding that IRFs may differ in their assessments of patients' motor and cognitive function suggests that the IRF CMGs may not be adequately capturing differences in patient acuity and costs across cases and providers. The potential for financial loss may therefore be greater for some providers than for others. Expanding the outlier pool would increase outlier payments for the most costly cases, easing the financial burden for IRFs that have a relatively high share of these cases.

Implications 9-3

Spending

- This recommendation would be implemented in a budget-neutral manner and should not have an overall impact on spending.

Beneficiary and provider

- We do not expect this recommendation to have adverse effects on Medicare beneficiaries with respect to access to care or out-of-pocket spending. This recommendation may relieve the financial pressure on some providers and may improve equity among providers by diminishing the effects of inaccurate coding. ■

**TABLE
10-4**

The number of for-profit and freestanding IRFs continued to grow in 2017

Type of IRF	Share of Medicare FFS discharges 2017	Number of IRFs						Average annual change		
		2009	2013	2014	2015	2016	2017	2009–2013	2013–2016	2016–2017
All IRFs	100%	1,196	1,161	1,177	1,182	1,188	1,178	–0.7%	0.8%	–0.8%
Urban	93	992	977	1,013	1,020	1,026	1,019	–0.4	1.6	–0.7
Rural	7	204	184	164	162	162	159	–2.5	–4.2	–1.9
Freestanding	52	225	243	251	262	273	279	0.8	4.0	2.2
Hospital based	48	971	918	926	920	915	899	–1.4	–0.1	–1.7
Nonprofit	39	732	677	681	681	676	655	–1.9	0.0	–3.1
For profit	54	295	322	338	352	370	392	2.2	4.7	5.9
Government	7	169	155	149	138	133	125	–2.1	–5.0	–6.0

Note: IRF (inpatient rehabilitation facility), FFS (fee-for-service). The number of facilities are for the calendar year. The large decline in the number of rural IRFs between 2013 and 2014 was due primarily to changes in the core-based statistical areas, as defined by the Office of Management and Budget, which determine whether geographic areas are considered urban or rural. Because of these changes, 19 IRFs that were previously considered rural are now designated urban. Components may not sum to totals due to missing data.

Source: MedPAC analysis of Provider of Services data and Medicare Provider Analysis and Review data from CMS.

Beneficiaries' access to care: IRF supply and service volume suggest sufficient access

We have no direct indicator of beneficiaries' access to IRF care. Although there are criteria for admission to an IRF, it is not clear when IRF care is necessary or beneficial for a given patient or when another, potentially lower cost PAC provider (such as a skilled nursing facility (SNF)) could provide appropriate care. The absence of IRFs in some areas of the country makes it particularly difficult to assess the need for IRF care since beneficiaries in areas without IRFs presumably receive similar services in other settings. Nevertheless, our analysis of IRF supply and volume of services provided suggests that capacity remains adequate to meet demand. Moreover, the marginal profit, an indicator of whether IRFs with excess capacity have an incentive to treat more Medicare beneficiaries, was robust for both freestanding and hospital-based IRFs, thus providing a very positive indicator of patient access.

Number of IRFs and occupancy rates suggest adequate capacity and supply

After declining from a peak of 1,235 facilities in 2005 (data not shown) to 1,161 facilities in 2013, the number of IRFs increased in 2014 and continued to grow through

2016 to 1,188 facilities nationwide (Table 10-4). But in 2017, the number of IRFs fell 0.8 percent to 1,178 facilities. IRFs are not the sole provider of rehabilitation services in communities; SNFs also provide rehabilitation services in an institutional setting, and home health agencies, comprehensive outpatient rehabilitation facilities, and independent therapy providers furnish care at home or on an outpatient basis. Given the number and distribution of these other rehabilitation therapy providers, it is unlikely that areas exist where IRFs are the only provider of rehabilitation therapy services available to Medicare beneficiaries.

In 2017, about 76 percent of IRFs were distinct units in acute care hospitals; the rest were freestanding facilities. However, because hospital-based units have, on average, fewer beds and a lower share of Medicare discharges, they accounted for only 48 percent of Medicare discharges. Overall, 33 percent of IRFs were for-profit entities. Freestanding IRFs were far more likely to be for profit than were hospital-based IRFs (78 percent vs. 19 percent; data not shown). In 2017, 54 percent of Medicare discharges were from for-profit facilities. Over time, the number of hospital-based and nonprofit IRFs has declined,

**TABLE
10-5****The number of IRF cases per FFS beneficiary decreased in 2017**

	2004	2006	2008	2010	2012	2014	2016	2017	Average annual change		
									2004–2008	2008–2016	2016–2017
Number of cases	495,349	404,633	356,312	359,307	373,284	375,590	390,514	379,885	–7.9%	1.2%	–2.7%
Cases per 10,000 FFS beneficiaries	135.6	111.9	100.4	99.7	100.1	99.2	100.9	98.5	–7.2	0.1	–2.4
Payment per case	\$13,290	\$15,380	\$16,646	\$17,085	\$17,795	\$18,632	\$19,714	\$20,322	5.8	2.1	3.1
ALOS (in days)	12.7	13.0	13.3	13.1	12.9	12.8	12.7	12.7	1.3	–0.6	0.0
Users	449,362	369,269	323,897	325,506	339,087	338,887	350,353	340,175	–7.9	1.0	–2.9

Note: IRF (inpatient rehabilitation facility), FFS (fee-for-service), ALOS (average length of stay).

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

while the number of freestanding and for-profit IRFs has increased. Between 2009 and 2017, the number of hospital-based IRFs fell by 7 percent and the number of nonprofit IRFs fell by 10 percent, while the number of freestanding IRFs and for-profit IRFs rose by 19 percent and 33 percent, respectively.

In 2017, 28 IRFs closed; most were hospital-based units. At the same time, 19 new IRFs opened. Slightly more than half of the new IRFs were hospital-based units. Of the new hospital-based units, about a third were for profit; of the new freestanding facilities, half were for profit. Acute care hospitals find that IRF units can help reduce inpatient lengths of stay. Previous Commission analyses have found that hospitals with IRF units have higher inpatient margins than hospitals without such units (Medicare Payment Advisory Commission 2015).

In 2017, the average IRF occupancy rate remained at 65 percent, the same level as in 2016. Occupancy rates were higher in freestanding IRFs (69 percent) than in hospital-based IRFs (61 percent). These rates suggest that capacity is more than adequate to meet demand for IRF services.

IRF Medicare volume decreased in 2017

The number of Medicare FFS IRF cases grew rapidly throughout the 1990s and the early years of the IRF PPS, reaching a peak of about 495,000 in 2004. After CMS renewed its enforcement of the compliance threshold in 2004, IRF volume declined substantially, as expected, falling almost 8 percent per year from 2004 to 2008 (Table 10-5). At that point, volume began to increase slowly, rising an average of 1.2 percent per year from 2008 to 2016. Between 2016 and 2017, however, the number of FFS IRF cases fell 2.7 percent, to a little less than 380,000 cases.

In 2017, the number of IRF cases per 10,000 FFS beneficiaries fell to 98.5, down 2.4 percent from the previous year. Relatively few Medicare beneficiaries use IRF services because, to qualify for Medicare coverage, IRF patients must be able to tolerate and benefit from rehabilitation therapy that is intensive, which is usually interpreted to mean at least three hours of therapy a day for at least five days a week. Yet, compared with all Medicare beneficiaries, those admitted to IRFs in 2017 were disproportionately over age 85.

With the decline in the number of IRF cases per FFS beneficiary, FFS Medicare's share of IRF discharges fell to 58 percent of total discharges as the volume of IRF cases across all payers rose slightly in 2017 (data not shown).

Marginal profit provides incentive to treat more Medicare beneficiaries

Another measure of access is whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries. Given the difference in financial performance across IRFs, we examined freestanding and hospital-based IRFs' marginal profit to assess whether both types of providers have a financial incentive to increase the number of Medicare beneficiaries they serve.⁹ We found that Medicare payments exceed marginal costs by a substantial amount—19.4 percent for hospital-based IRFs and 38.8 percent for freestanding IRFs—suggesting that IRFs with available beds have a strong incentive to admit Medicare patients. This finding is a very positive indicator of patient access, even in IRFs with lower overall Medicare margins.

Quality of care: Steady or improved for most measures

Between 2012 and 2017, the Commission has tracked three broad categories of IRF quality indicators: risk-adjusted facility-level change in functional and cognitive status during the IRF stay, rates of discharge to the community and to SNFs, and rates of readmission to an acute care hospital (see text box on measures of quality). During this period, most measures were steady or improved.

Risk-adjusted rates of potentially avoidable rehospitalization, discharge to the community, and discharge to SNF

Avoidable rehospitalizations expose beneficiaries to hospital-acquired infections, increase the number of transitions between settings (which are disruptive to patients), and can result in medical errors (such as medication errors). In addition, they unnecessarily

increase Medicare spending. There has been relatively little research on rehospitalization of IRF patients in aggregate, though some studies have focused on one or more rehabilitation impairment categories (Dejong et al. 2009, Galloway et al. 2013, Ottenbacher et al. 2014, Schneider et al. 2013, Schneider et al. 2012). However, research regarding rehospitalization of SNF and nursing home patients has identified several contributing factors that may be within a PAC provider's control. These factors include staffing level, skill mix, and frequency of staff turnover; drug management; and adherence to transitional care protocols such as discharge counseling, medication reconciliation, patient education regarding self-care, and communication among providers, staff, and the patient's family (Grabowski et al. 2008, Kane et al. 2003, Konetzka et al. 2008a, Konetzka et al. 2008b, Lau et al. 2005, Mustard and Mayer 1997).

The Commission's rates of rehospitalization during the IRF stay and during the 30 days after discharge are risk adjusted and reflect those readmissions that are potentially avoidable with adequate care in the IRF setting (Kramer et al. 2015).¹⁰ The measure of rehospitalization in the 30 days after discharge reflects in part how well facilities prepare beneficiaries and their caregivers for safe and appropriate transitions to the home or the next health care setting. Since 2013, the national average rate of risk-adjusted potentially avoidable rehospitalizations during the IRF stay has been about 2.6 percent (Table 10-6, p. 266). (Lower rates are better.) Meanwhile, between 2012 and 2017, the rate of risk-adjusted potentially avoidable rehospitalization within 30 days after discharge from an IRF declined from 4.8 percent to 4.3 percent in 2015, then rose to 4.7 percent in 2016 and 2017.

We also examined rates of discharge to the community and to SNFs. We found that between 2012 and 2017, the national average for the risk-adjusted community discharge rate increased from 74.2 percent to 76.0 percent.¹¹ (Higher rates are better.) Between 2012 and 2014, the national average for the risk-adjusted rate of discharge to SNFs increased from 6.9 percent to 7.1 percent, but subsequently declined to 6.8 percent in 2017 (lower rates are better).

The Commission also considers functional status at admission and discharge, measured using the motor and cognitive scores on the IRF-PAI. This instrument incorporates the 18-item Functional Independence MeasureTM (FIMTM) scale to assess the level of disability in motor and cognitive functioning and the burden of

Measures of inpatient rehabilitation facility quality

In its assessment of the quality of care in inpatient rehabilitation facilities (IRFs), the Commission has historically examined risk-adjusted rates of readmission to the hospital, discharge to the community and to skilled nursing facilities (SNFs), and change in functional status during the IRF stay.

Two readmission measures are calculated: one that occurs during the IRF stay and one that occurs within 30 days after discharge from the IRF (Kramer et al. 2015). Individuals who died in the IRF or during the 30 days after discharge from the IRF were excluded from the facilities' readmission rates. The readmission measures count patients whose primary diagnosis for rehospitalization was considered potentially avoidable; that is, the condition typically could have been managed in the IRF. The potentially avoidable readmissions are respiratory-related illness (pneumonia, influenza, bronchitis, chronic obstructive pulmonary disease, and asthma); sepsis; congestive heart failure; fractures or fall with a major injury; urinary tract or kidney infection; blood pressure management; electrolyte imbalance; anticoagulant therapy complications; diabetes-related complications; cellulitis or wound infection; pressure ulcer; medication error or adverse drug reaction; and delirium. For the measure of potentially avoidable readmission during the IRF stay, delirium could be a primary or a secondary rehospitalization diagnosis.

To account for beneficiaries who are discharged from the IRF to a SNF, a measure of discharge to SNF is calculated. This measure reflects the share of stays in which the patient was discharged directly from the IRF for additional rehabilitation in a SNF that was financed under Medicare Part A's skilled nursing benefit.

Patients who were discharged from the IRF to a nursing home for a non-SNF episode are not considered discharged to a SNF.

The community discharge measure reflects the share of stays in which the patient was not discharged directly from the IRF to a hospital or a SNF. Individuals who were discharged from the IRF to a nursing home as a non-SNF resident (that is, for long-term care financed by payers other than Medicare) are included in the measure of community discharge. Patients who were discharged from the IRF to the community but were admitted to a hospital within one day of discharge are not considered discharged to the community.

The change in the Functional Independence Measure™ from admission to discharge is calculated for both motor function and cognition. The measures represent the average change among patients for 13 motor items and 5 cognitive items on the IRF–Patient Assessment Instrument. Patients with missing information for any of the items are not included when calculating average change.

The observed rates of readmission to the hospital, discharge to the community and to SNFs, and change in functional status during the IRF stay are risk adjusted for medical comorbidities, functional status at IRF admission, rehabilitation impairment category, and demographic characteristics. The data sources used for risk adjustment were Part A hospital and IRF claims. Risk-adjusted rates compare a facility's observed rates with its expected rates based on the mix of patients. The rates reported are the average risk-adjusted rates for Medicare fee-for-service beneficiaries in all IRFs with 25 or more stays during the year. ■

care for a patient's caregivers (Deutsch et al. 2005). Scores for each of the 18 FIM items can be summed to calculate a motor score (based on 13 FIM items) and a cognitive score (based on 5 FIM items). The motor score at discharge can range from 13 to 91, while the cognitive score can range from 5 to 35, with higher scores

indicating greater functional independence. To measure observed improvement in motor function and cognition, we subtracted the respective FIM scores at admission from the FIM scores at discharge to calculate FIM motor and cognitive gains (Kramer et al. 2015). A larger number indicates more improvement in functional independence

**TABLE
10-6****Risk-adjusted quality indicators for IRFs held steady or improved slightly from 2012 to 2017**

Measure	2012	2013	2014	2015	2016	2017	Percent change 2012-2017
Potentially avoidable rehospitalizations during IRF stay	2.8%	2.6%	2.7%	2.6%	2.7%	2.6%	-7.1%
Discharged to a SNF	6.9%	6.9%	7.1%	7.0%	6.8%	6.8%	-1.4
Discharged to the community	74.2%	74.9%	75.2%	75.0%	75.9%	76.0%	2.4
Potentially avoidable rehospitalizations during 30 days after discharge from IRF	4.8%	4.8%	4.7%	4.3%	4.7%	4.7%	-2.1
Motor FIM™ gain	22.1	22.4	22.9	23.1	23.7	24.0	8.6
Cognitive FIM™ gain	3.5	3.7	3.7	3.7	3.8	3.9	10.3

Note: IRF (inpatient rehabilitation facility), SNF (skilled nursing facility), FIM™ (Functional Independence Measure™). High rates of discharge to the community indicate better quality. High rates of rehospitalization and discharge to SNF indicate worse quality. Rates are the average of facility rates and calculated for all facilities with 25 or more Medicare fee-for-service stays. The motor FIM measures the level of disability in motor functioning on a 91-point scale. The cognitive FIM measures the level of cognitive impairment on a 35-point scale. FIM gain is calculated as the FIM score at discharge minus the FIM score at admission. Higher FIM gain indicates more improvement. Mean FIM gain averages the change of all facilities with 25 or more Medicare fee-for-service stays.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

and cognition between admission and discharge. Each risk-adjusted rate was calculated by comparing a facility's observed rate with its expected rate and multiplying this ratio by the national rate.

In 2017, the mean gain (positive change) in the motor FIM score during an IRF stay was 24.0, while the mean gain for the cognitive FIM score was 3.9 (Table 10-6). (Bigger gains are better.) From 2012 to 2017, the average risk-adjusted gain in IRF patients' motor and cognitive FIM scores (as assigned by IRFs) increased about 9 percent and 10 percent, respectively. However, changes in motor function and cognition must be interpreted with caution. Functional status data are generally obtained by observation of the patient and are somewhat subjective. Because payment is based in part on patients' functional status at admission—with higher payments associated with lower functional status—providers have a financial incentive to minimize their assessments of patients' levels of function at admission. If IRFs minimize patients' functional status at admission, gains in function during the patients' stays will be overstated.

Overall, the Commission finds that most quality measures have been stable or improved slightly over the past five

years. However, improvements in the functional status measures should be viewed with some caution given that they are self-reported rather than claims-based measures. The Commission is evaluating the reliability of patient assessment data and the appropriateness of using these data for payment on quality assessment of PAC providers.

Variation in quality measures across IRFs

IRFs varied widely in their performance on Medicare's quality measures (Table 10-7). In 2017, the lowest performing quartile of IRFs had a risk-adjusted rate of discharge to a SNF that was 8.7 percent or higher, compared with 4.2 percent or lower for the best performing quartile of providers. (A lower rate of discharge to a SNF is better.) Risk-adjusted rates of discharge to the community varied as well: The worst performing quartile of IRFs had a community discharge rate of 73.1 percent or lower, compared with 79.2 percent or higher for the best performing quartile of providers. (A higher rate of discharge to the community is better.) Rehospitalization rates also varied: The worst performing quartile had risk-adjusted rates of potentially avoidable rehospitalization during the IRF stay that were at or above 3.5 percent, compared with 1.7 percent or below for the

**TABLE
10-7**

Performance on risk-adjusted quality measures varied across IRFs in 2017

Measure	Risk-adjusted rate			Ratio of best to worst performing quartile
	Mean	Worst performing quartile	Best performing quartile	
Potentially avoidable rehospitalizations during IRF stay	2.6%	3.5%	1.7%	0.49
Discharged to a SNF	6.8%	8.7%	4.2%	0.48
Discharged to the community	76.0%	73.1%	79.2%	1.08
Potentially avoidable rehospitalizations during 30 days after discharge from IRF	4.7%	5.8%	3.4%	0.59
Motor FIM™ gain	24.0	21.2	26.4	1.25
Cognitive FIM gain	3.9	3.0	4.7	1.34

Note: IRF (inpatient rehabilitation facility), FIM™ (Functional Independence Measure™), SNF (skilled nursing facility). High rates of discharge to the community indicate better quality. High rates of rehospitalization and discharge to SNF indicate worse quality. Mean rates are calculated for all facilities with 25 or more Medicare fee-for-service stays. The motor FIM measures the level of disability in motor functioning on a 91-point scale. The cognitive FIM measures the level of cognitive impairment on a 35-point scale. FIM gain is calculated as the FIM score at discharge minus the FIM score at admission. Higher FIM gain indicates more improvement.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

best performing quartile. (A lower rate of readmissions is better.) Variation was also observed in the two FIM gain measures, but because these measures are self-reported, they could reflect reporting differences more than performance differences.

Providers’ access to capital: IRFs appear to have adequate access to capital

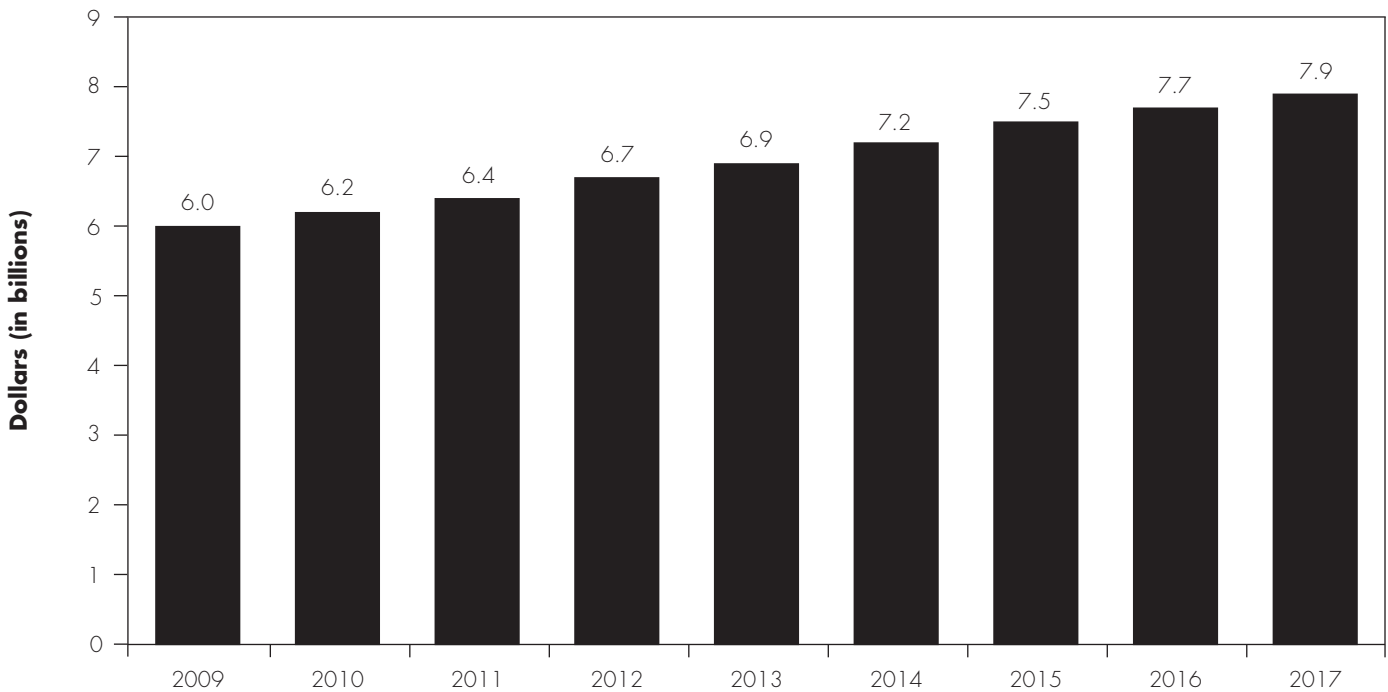
More than three-quarters of IRF providers are hospital-based units that would access any necessary capital through their parent institutions. Overall, as detailed in the hospital chapter, hospitals’ access to capital remained strong in 2017 with a continued high level of bond issuances. New construction spending has declined and has shifted more to outpatient than inpatient capacity (Conn 2017). Large hospital systems in recent years have invested significantly in the ambulatory setting, as opposed to the acute inpatient setting, in an effort to access faster growing markets and offer access to lower cost settings in a business environment shifting toward value-based care (Barclays 2018).

Market analysts indicate that the IRF industry’s largest chain, Encompass Health (formerly HealthSouth)—

which owned almost half of freestanding IRFs in 2017 and accounted for about a quarter of all Medicare IRF discharges—has good access to capital. This assessment is reflected in the chain’s continued expansion. Analysts note that Encompass Health traditionally has prioritized building new facilities over acquiring existing facilities, which allows the company to maintain control over facility size, layout, and amenities. In 2017, the company opened four new facilities and two more in 2018, with two additional facilities scheduled to open in 2019. The new facilities are frequently joint ventures with acute care hospitals (HealthSouth Corporation 2018). As part of a vertical integration strategy, the company has acquired home health agencies and hospice providers to expand its PAC business and drive more effective collaboration between its rehabilitation facilities and home health agencies.

Most other freestanding IRFs are independent or local chains with a limited number of facilities. The extent to which these providers have access to capital is less clear.

IRFs’ access to capital depends in large part on their total (all-payer) profitability. In 2017, total margins for freestanding IRFs remained healthy, with an aggregate

**FIGURE
10-1****Program spending for IRF services has grown steadily since 2009**

Note: IRF (inpatient rehabilitation facility).

Source: Office of the Actuary 2018.

margin of 10.4 percent, up 0.8 percentage point from 2016. Profitability varied by ownership. In 2017, for-profit IRFs had an aggregate total margin of 12.5 percent compared with 5.6 percent for nonprofit IRFs. Data are not available to calculate total margins for hospital-based IRFs. However, in 2017, hospitals' aggregate total margins across all lines of service for hospitals with and without IRF units were similar, at 7.0 percent and 7.2 percent, respectively.

Medicare payments and providers' costs: Medicare margins remained high in 2017

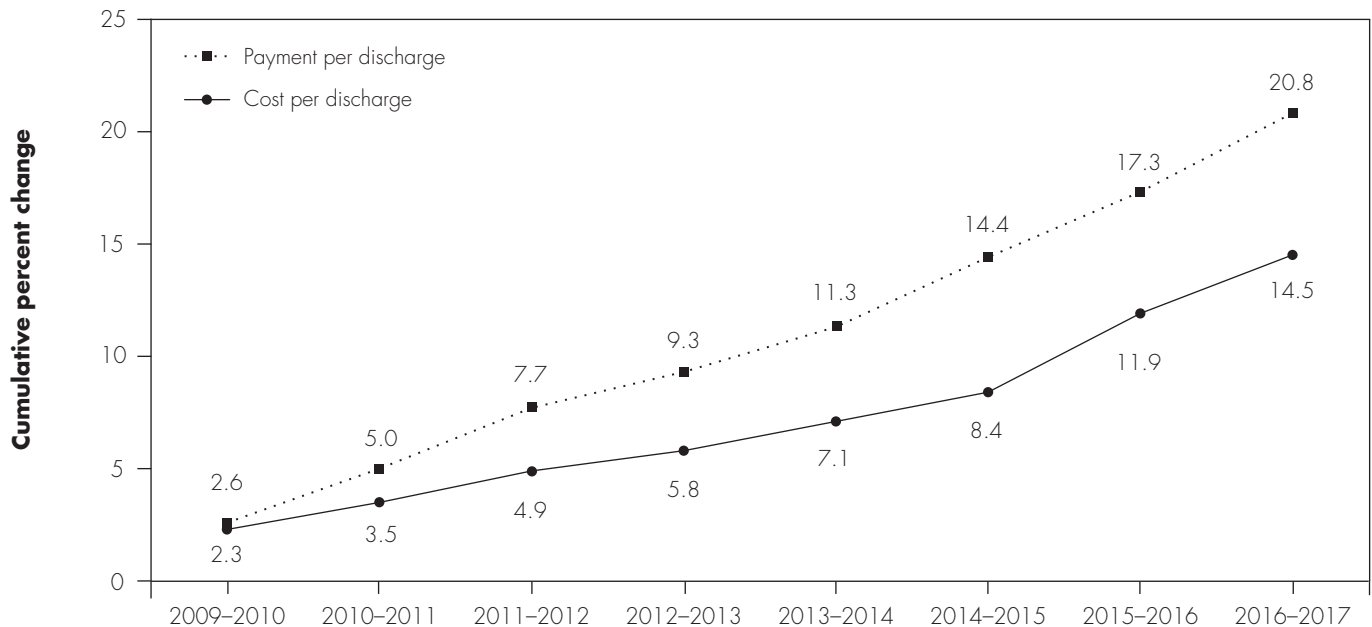
Aggregate Medicare margins grew steadily between 2009 and 2015 and increased again in 2017 to 13.8 percent (Table 10-8, p. 270). Medicare margins in freestanding IRFs were 25.5 percent in 2017, down slightly from a peak of 26.7 percent in 2015. Hospital-based IRF margins were comparatively low at 1.5 percent in 2017, but one-quarter of hospital-based IRFs had Medicare margins greater than

11 percent, indicating that many hospitals can manage their IRF units profitably. Lower margins in hospital-based IRFs were driven largely by higher unit costs.

Trends in spending and cost growth

The Office of the Actuary estimates that Medicare FFS spending for IRF services in fiscal year 2017 was \$7.9 billion (Figure 10-1). Program spending has been growing, on average, more than 3 percent per year since 2009. A combination of increases in the number of Medicare beneficiaries receiving care in IRFs (average growth of 0.5 percent per year) and payment increases averaging 2.6 percent contributed to this growth in spending.

Since 2009, payments have been growing faster than costs (Figure 10-2). From 2009 to 2015, the cumulative growth in cost per discharge was 8.4 percent, an average of just 1.4 percent per year. The cumulative growth in cost per discharge for freestanding for-profit IRFs was especially

**FIGURE
10-2****IRFs' payments per discharge increased cumulatively more than costs, 2009–2017**

Note: IRF (inpatient rehabilitation facility). Percent changes are calculated based on consistent two-year cohorts.

Source: MedPAC analysis of Medicare cost report data from CMS.

slow over this period, at just 2.2 percent (data not shown). In contrast, payments per discharge grew more rapidly than costs, climbing a cumulative 14.4 percent over this period (an average of 2.2 percent per year) and 15.1 percent for freestanding for-profit IRFs (latter figure not shown). These differences in per case cost and payment growth led to a steady rise between 2009 and 2015 in aggregate Medicare margins, which climbed from 8.4 percent to 13.9 percent (Table 10-8, p. 270; 2009 data not shown).

Between 2015 and 2016, cost growth outpaced payment growth for the first time since 2009, climbing 3.6 percent, the fastest rate of cost growth since 2008. However, from 2016 to 2017, payments per discharge again increased faster than costs, growing by 3.4 percent compared with 2.6 percent for costs, contributing to an increase in the 2017 Medicare margin to 13.8 percent. From 2015 through 2017, aggregate Medicare margins for IRFs remained above 13 percent (Table 10-8, p. 270).

Margins vary widely

Financial performance varied across IRFs. In 2017, the aggregate margin for freestanding IRFs (which accounted for 53 percent of Medicare discharges from IRFs) was 25.5 percent; hospital-based IRFs had an aggregate margin of 1.5 percent (Table 10-8, p. 270). Margins varied by ownership as well, with for-profit IRFs having a substantially higher aggregate Medicare margin in 2017 than nonprofit IRFs (23.8 percent vs. 2.2 percent). (Hospital-based IRFs are far more likely than freestanding IRFs to be nonprofit.) Among freestanding IRFs, nonprofit facilities (which accounted for 7 percent of Medicare discharges from IRFs) had an aggregate margin of 12.0 percent (data not shown). Freestanding for-profit IRFs (which accounted for 45 percent of Medicare discharges from IRFs) had an aggregate margin of 27.8 percent (data not shown). Among hospital-based IRFs, the aggregate margin for nonprofit units (which accounted for 32 percent of Medicare discharges from IRFs) was 0.1 percent, compared with 6.6 percent for for-profit units (which

**TABLE
10-8****Aggregate FFS Medicare IRF margins remained high in 2017**

Type of IRF	Share of Medicare discharges, 2017	Margins								
		2004	2006	2008	2010	2012	2014	2015	2016	2017
All IRFs	100%	16.7%	12.5%	9.4%	8.6%	11.2%	12.2%	13.9%	13.3%	13.8%
Hospital based	47	12.2	9.9	3.8	-0.6	0.7	0.7	2.2	0.9	1.5
Freestanding	53	24.7	17.5	18.2	21.4	23.9	25.2	26.7	25.8	25.5
Nonprofit	38	12.8	10.9	5.3	2.1	2.1	1.7	3.5	1.6	2.2
For profit	55	24.4	16.3	16.8	19.6	22.9	23.6	24.9	24.2	23.8
Government	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Urban	93	17.0	12.8	9.6	9.0	11.6	12.6	14.3	13.6	14.2
Rural	7	13.2	9.0	7.2	4.7	6.3	6.4	8.6	9.4	8.4
Number of beds										
1 to 10	2	3.7	-3.6	-4.9	-10.3	-6.9	-10.9	-7.5	-9.9	-10.5
11 to 24	21	10.5	7.3	1.2	-3.3	-1.2	-0.3	-0.4	-0.2	0.6
25 to 64	48	18.3	13.7	10.0	10.6	12.3	14.0	16.0	15.0	15.8
65 or more	29	21.5	17.8	17.4	17.5	21.0	20.6	23.1	22.4	21.9
Medicare share										
<50%	19	12.9	11.1	5.1	0.4	2.4	2.3	3.7	2.9	3.0
50% to 75%	56	17.1	12.6	9.5	9.6	12.5	14.1	16.1	15.4	15.8
>75%	25	19.6	13.9	13.5	13.6	20.5	20.2	20.8	20.2	21.1

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility), N/A (not applicable). Government-owned facilities operate in a different financial context from other facilities, so their margins are not necessarily comparable. Their margins are not presented separately here, although they are included in the margins for other groups (e.g., "all IRFs"), where applicable. Percentages may not sum to 100 due to rounding.

Source: MedPAC analysis of cost report data from CMS.

accounted for 10 percent of Medicare discharges from IRFs; data not shown).

Higher unit costs were the primary driver of differences in financial performance between freestanding and hospital-based IRFs. Freestanding IRFs had a median standardized cost per discharge that was 27 percent lower than that of hospital-based IRFs (\$12,069 vs. \$16,645, respectively). Hospital-based IRFs are far more likely than freestanding IRFs to be nonprofit, which could contribute to the disparity in unit costs. But even nonprofit freestanding IRFs had a median standardized cost per discharge that was 15 percent lower than that of hospital-based IRFs (data not shown). Previous Commission analysis of underlying cost

components found that hospital-based IRFs had higher costs than freestanding IRFs across all cost categories, with the biggest difference manifesting in routine costs (Medicare Payment Advisory Commission 2015).

Nevertheless, one-quarter of hospital-based IRFs had Medicare margins greater than 11 percent, indicating that many hospitals can manage their IRF units profitably. Further, despite comparatively low average margins in hospital-based IRFs, evidence suggests that these units make a positive financial contribution to their parent hospitals. For example, aggregate inpatient Medicare margins for hospitals are consistently higher for hospitals with IRF units versus hospitals without (0.8 percentage

point higher in 2017). Aggregate overall Medicare margins for hospitals with IRF units were 2.0 percentage points higher in 2017.

Margins also varied by facility size. In 2017, the aggregate Medicare margin for IRFs with 10 or fewer beds was –10.5 percent, compared with 21.9 percent for IRFs with 65 or more beds (Table 10-8). These differences are in large measure due to differences in economies of scale leading to higher costs in smaller facilities. The median standardized cost for IRFs with fewer than 10 beds was 53 percent higher than for IRFs with 65 or more beds (\$18,636 compared with \$12,200; data not shown). Smaller facilities also tend to have lower occupancy rates than large facilities (54 percent compared with 68 percent in 2017), also contributing to differences in costs.

Medicare margins tended to rise as the share of Medicare patients increased. The aggregate Medicare margin was 3.0 percent for IRFs in which fewer than half of discharges were covered by FFS Medicare, compared with 21.1 percent for IRFs in which more than three-quarters of discharges were covered by FFS Medicare (Table 10-8).

Numerous factors contribute to lower margins in hospital-based IRFs

Several factors account for the disparity in margins between hospital-based and freestanding IRFs, including differences in economies of scale, stringency of cost control, service mix, and patient mix. Differences in IRFs' assessment of patients' motor function and cognition likely play a role as well.

Hospital-based IRFs may be less stringent in cost control

Hospital-based IRFs appear to be less stringent in their cost control. Between 2009 and 2017, costs per case for hospital-based IRFs grew 21.1 percent, compared with 10.3 percent for freestanding IRFs. Notably, hospital-based IRFs are far less likely than freestanding IRFs to be for profit and therefore are likely to be less focused on controlling costs to maximize returns to investors. We see this effect among freestanding IRFs, where the cumulative increase in costs per case from 2009 to 2017 for nonprofits (26.5 percent) far outstripped that of for-profit facilities (8.2 percent).

Hospital-based IRFs have a different mix of patients

There are marked differences in hospital-based and freestanding IRFs' mix of cases. Between 2009 and 2015, freestanding IRFs compared with hospital-based IRFs admitted a larger share of patients with stroke as

the primary reason for rehabilitation (24 percent vs. 17 percent). Similarly, freestanding IRFs compared with hospital-based IRFs admitted larger shares of cases with other neurological conditions (19 percent vs. 10 percent) and other orthopedic conditions (10 percent vs. 6 percent). Notably, the impairment groups of other neurological and other orthopedic conditions encompass a broader range of conditions than do other impairment groups. This clinical heterogeneity can allow favorable selection of patients within these groups based on their likely costs of care. Cases with other neurological conditions also count toward the compliance threshold, so IRFs with higher shares of these cases can more easily meet the requirements of the 60 percent rule while keeping down costs. Further, some case types are more profitable than others, resulting in higher margins for facilities that admit larger shares of those cases. The Commission plans to examine the relative profitability of the IRF case-mix groups in a future analysis.

In general, hospital-based IRFs also have a much larger share of cases with extraordinarily high costs. In 2017, 15 percent of hospital-based IRF cases qualified for high-cost outlier payments, compared with 3 percent of freestanding IRF cases. Indeed, 85 percent of Medicare's IRF outlier payments were made to hospital-based facilities. Though these payments diminish losses per case for such outliers, they do not completely cover the costs. It is not clear whether the large number of outlier cases in hospital-based IRFs stems from differences in efficiency, unmeasured case complexity, or both.

Hospital-based IRFs appear to assess their patients differently

Historically, evidence suggests that assessments of patients' motor and cognitive function are not reliably consistent across IRFs. Some in the industry have postulated that hospital-based IRFs devote less time to training assessment staff and verifying the accuracy of assessments, resulting in less reliable measures of patients' motor and cognitive function in hospital-based IRFs. Others assert that some freestanding IRFs aggressively assess their patients in a way that maximizes payment. To the extent that hospital-based IRFs consistently assess their patients as less disabled than do their freestanding counterparts, for whatever reason, their payments—and margins—will be systematically lower.

Efficient provider analysis

The Commission is required by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 to

Identifying relatively efficient inpatient rehabilitation facilities

The Commission is required by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 to consider the costs associated with an efficient provider. This year, we attempted to identify and examine the financial performance of inpatient rehabilitation facilities (IRFs) that had consistently low costs per discharge and high quality. We calculated the cost per discharge using cost report and claims data and adjusted for differences in area wages; mix of cases; and prevalence of high-cost outliers, short-stay outliers, and transfer cases. For quality measures, we used risk-adjusted rates of potentially avoidable rehospitalizations during the IRF stay and risk-adjusted rates of discharge to a skilled nursing facility. To be included in the group of IRFs that furnished relatively low-cost, high-quality care, an IRF had to be (1) in the best performing third of the distribution of adjusted cost per discharge or of one of the quality measures for three consecutive years (2014 through 2016) and (2) not in the worst performing third of the distribution of adjusted cost per discharge or either of the quality measures for three consecutive

years. Only IRFs with at least 25 Medicare fee-for-service discharges were included in the analysis.

The method we used to assess performance attempts to limit drawing incorrect conclusions about performance based on poor data. Using three years to categorize IRFs as efficient (rather than just one year) avoids categorizing providers based on random variation or on one “unusual” year. After determining whether an IRF was relatively efficient based on having relatively low costs and good quality care for three years in a row, we calculated performance on several quality and cost measures in 2017. By first assigning an IRF to a group (relatively efficient or other) and then examining the group’s performance in the next year, we avoid having a facility’s poor data affect both its own categorization and the assessment of the group’s performance. Thus, an IRF’s erroneous data in 2014, 2015, or 2016 could result in its inaccurate assignment to a group, but because the group’s performance is assessed with data from 2017, these “bad” data would not directly affect the assessment of the group’s performance. ■

consider the costs associated with efficient providers. The Commission follows two principles when selecting a set of efficient providers. First, the providers must do relatively well on both cost and quality metrics. Second, the performance has to be consistent, meaning that the provider cannot have poor performance on any metric in any of three consecutive years preceding the year under evaluation. The Commission’s approach is to develop a set of criteria and then examine how many providers meet them. It does not establish a set share (for example, 10 percent) of providers to be considered efficient and then define criteria to meet that pool size.

This year is the first one in which the Commission has examined the financial performance of relatively efficient IRFs. The text box explains how we identified relatively efficient IRFs. Our analysis finds that relatively efficient IRFs had lower rehospitalization rates and discharge to SNFs than other IRFs. While payment rates to all IRFs were similar, standardized costs per discharge for this group were 18 percent lower, leading to a large difference

in the median Medicare margin, which was 16.5 percent for the relatively efficient group compared with 1.0 percent for other IRFs (Table 10-9).

Relatively efficient IRFs were on average larger and had higher occupancy rates compared with other IRFs, leading to greater economies of scale. The mix of cases also differed somewhat between the relatively efficient and other IRFs. Relatively efficient IRFs had a higher average case-mix index, more cases with other neurological conditions, but smaller shares of stroke cases compared with other IRFs.

Although all types of facilities were represented in the relatively efficient group of IRFs, they were much more likely to be freestanding and/or for profit. In fact, over half of Encompass Health facilities (formerly HealthSouth) were in the relatively efficient IRF group. Hospital-based nonprofit IRFs were less likely to be in the relatively efficient group, although they accounted for over a third (37.2 percent) of this group.

**TABLE
10-9****Characteristics of relatively efficient providers, 2017**

Performance in 2017	Type of IRF		Ratio of relatively efficient to other IRFs
	Relatively efficient IRFs	Other IRFs	
Median:			
Rehospitalization rate	2.4%	2.6%	0.91
Discharge to SNF rate	4.6%	7.0%	0.65
Payment per discharge	\$20,624	\$20,569	1.00
Standardized cost per discharge	\$13,385	\$16,390	0.82
Medicare margin	16.5%	1.0%	N/A
Facility case-mix index	1.34	1.28	1.05
Length of stay (in days)	12.7	12.7	1.00
Occupancy rate	69%	61%	1.21
Number of beds	30	23	1.30
Share of discharges that were for:			
Stroke	19.5%	23.2%	0.84
Other neurological conditions	10.3%	6.9%	1.49
Share of facilities that were:			
Freestanding	40.5%	20.7%	N/A
For profit	51.2%	34.3%	N/A
Hospital-based nonprofit	37.2%	52.5%	N/A

Note: IRF (inpatient rehabilitation facility), SNF (skilled nursing facility). IRFs were identified as “relatively efficient” based on a cost measure (costs per discharge) and two quality measures (rates of readmission and discharge to SNFs) between 2014 and 2016. Relatively efficient IRFs were those in the best third of the distribution for one measure and not in the worst third for any measure in each of the three years. Costs per discharge were standardized for differences in area wages; mix of cases; and prevalence of high-cost outliers, short-stay outliers, and transfer cases. Quality measures were calculated for all facilities with 25 or more fee-for-service stays. “Rehospitalization rate” refers to potentially avoidable rehospitalizations during the IRF stay. High rates of rehospitalization and discharge to SNF indicate worse quality. “Other neurological conditions” includes multiple sclerosis, Parkinson’s disease, polyneuropathy, and neuromuscular disorders.

Source: MedPAC analysis of Medicare cost report data, Medicare Provider Analysis and Review data, and Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS for 2013 to 2016.

How should Medicare payments change in 2020?

To estimate 2019 payments, costs, and margins with 2017 data, the Commission considers policy changes effective in 2018 and 2019, including those in the Patient Protection and Affordable Care Act of 2010 (PPACA) and the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). Those changes that affect our estimate of the 2019 margin include:

- an update of 1.0 percent for fiscal year 2018, as required by MACRA¹²; and
- an update of 1.35 percent in 2019 based on an IRF market basket increase of 2.9 percent with offsetting productivity adjustment and PPACA adjustments of 0.8 percent and 0.75 percent, and changes to the high-cost outlier fixed loss amount in 2019, which will lower payments.

Historically, cost growth in this sector has been at or below market basket levels, though between 2015 and 2016, cost

growth exceeded the market basket. We use a three-year historical average to estimate cost growth in 2018 and 2019.

Considering these assumptions, we project an aggregate Medicare margin of 11.6 percent for IRFs in 2019.

For fiscal years 2009 through 2017, the Commission recommended a 0 percent update to the IRF payment rate. In its calculations for fiscal year 2019, however, as the aggregate margin neared historic highs, the Commission recommended in its March 2017 and March 2018 reports that the Congress reduce IRF payment rates by 5 percent. Because such action was not taken and because, in the absence of legislative action, CMS is required by statute to apply an adjusted market basket increase, payments have continued to rise: From 2009 to 2015, the cumulative growth in payments per discharge was 14.4 percent, while cost growth was 8.4 percent—well below market basket levels. In 2016, the gap between payments and costs narrowed somewhat as per case cost growth (3.6 percent in aggregate) exceeded payment growth (2.9 percent in aggregate) for the first time since 2008. As a result, the aggregate margin in 2016 declined but remained high at 13.3 percent. In 2017, payments again increased faster than costs, raising margins to 13.8 percent. This high aggregate margin indicates that aggregate Medicare payments continue to substantially exceed the costs of caring for beneficiaries in IRFs. Absent congressional action, payments to IRFs will continue to increase in fiscal year 2020 by an estimated 2.7 percent, the largest payment rate update in the past decade.

Reducing the payment rate for IRFs would better align Medicare payments with the costs of IRF care. The Commission continues to believe that the high-cost outlier pool should be expanded, as previously recommended in 2016, to further redistribute payments within the IRF PPS and reduce the impact of potential misalignments between IRF payments and costs. Currently, the outlier pool is set at 3 percent of total IRF payments. Expanding the outlier pool would increase outlier payments for the most costly cases, ameliorating the financial burden for IRFs that have a relatively high share of these cases. The expanded outlier pool would be funded by an offset to the national base payment amount, which would further reduce all CMG payment rates by the same percentage across the board. As noted in our March 2016 and March 2017 reports to the Congress, expanding the outlier pool could increase payments for providers who are less efficient as well as for providers whose patients' acuity is not well captured by

the case-mix system. Nevertheless, because of concerns about the accuracy of Medicare's payments for resource-intensive cases, the Commission continues to believe that an expanded outlier pool is warranted in the near term. Over the longer term, however, CMS must ensure the accuracy of Medicare's payments by determining that IRFs' assessment and scoring consistently reflects patients' level of disability. Research is also needed to assess variation in costs within the IRF CMGs and differences in relative profitability across CMGs. In the future, CMS could enact payment system reforms that necessitate reassessment of IRF outlier payments and adjustments to the outlier pool, including a return to a smaller pool.

The Commission also reiterates its March 2016 recommendation that the Secretary conduct focused medical record review of IRFs that have unusual patterns of case mix and coding and conduct other research necessary to improve the accuracy of payments and protect program integrity. With the shift to using the QRP functional measures in 2020 to classify cases into CMGs, it is important that CMS conduct focused medical reviews to ensure consistency in reporting across providers using the new measures.

The Commission estimates that reducing the payment rate for IRFs by 5 percent and expanding the outlier pool from 3 percent to 5 percent would decrease total payments to IRFs by 5 percent. We estimate the combined effect of reducing the payment rate for IRFs by 5 percent and expanding the outlier pool would decrease aggregate payments to freestanding IRFs by 6.2 percent; to hospital-based IRFs by 3.8 percent; to for-profit IRFs by 6.0 percent; and to nonprofit IRFs by 4.2 percent. Changes being made by the Secretary to the CMGs by using the QRP functional measures in place of the FIM, though budget neutral, may result in some small shift in payments toward hospital-based and nonprofit facilities in the short term.

RECOMMENDATION 10

For 2020, the Congress should reduce the fiscal year 2019 Medicare base payment rate for inpatient rehabilitation facilities by 5 percent.

RATIONALE 10

The combination of low historical cost growth and increasing average payments has resulted in overpayments to IRFs. The high aggregate margin in 2017 and our

projected margin for 2019 indicate that Medicare payments substantially exceed the costs of caring for beneficiaries. This excess contributes to Medicare's long-run sustainability challenges. For every fiscal year since 2009, the Commission has recommended that the update to the IRF payment rate be eliminated or that the payment rate be reduced. However, CMS has been required by statute to apply an adjusted market basket increase each year. Between 2009 and 2017, the cumulative increase in payments per case for all IRFs was 20.8 percent, while costs per case rose 14.5 percent, a difference of more than 6 percentage points. Reducing the payment rate for IRFs by 5 percent would better align Medicare payments with the costs of IRF care.

IMPLICATIONS 10

Spending

- The payment update for IRFs in fiscal year 2020 consists of a forecasted 3.2 percent market basket

update and a forecasted –0.5 percent productivity adjustment of the market basket update.¹³ Relative to current law, this recommendation would decrease Medicare spending by between \$250 million and \$750 million in 2019 and by between \$5 billion and \$10 billion over five years.

Beneficiary and provider

- We do not expect this combination of recommendations to have an adverse effect on either Medicare beneficiaries' access to care or out-of-pocket spending. This recommendation could increase the financial pressure on some providers. We expect relatively efficient providers will continue to be willing and able to care for Medicare beneficiaries. ■

Endnotes

- 1 More frequently, Medicare beneficiaries receive inpatient rehabilitation services in skilled nursing facilities (SNFs), in part because there are many more SNFs than IRFs nationwide.
- 2 More information about the prospective payment system for IRFs is available at http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_irf_final_sec.pdf?sfvrsn=0.
- 3 Patients with a length of stay of fewer than four days are assigned to a single CMG, regardless of diagnosis, age, level of motor or cognitive function, or presence of comorbidities.
- 4 The 13 conditions are stroke; spinal cord injury; congenital deformity; amputation of a lower limb; major multiple trauma; hip fracture; brain injury; certain other neurological conditions (multiple sclerosis, Parkinson's disease, cerebral palsy, and neuromuscular disorders); burns; 3 arthritis conditions for which appropriate, aggressive, and sustained outpatient therapy has failed; and hip or knee replacement when it is bilateral, the patient's body mass index is greater than or equal to 50, or the patient is age 85 or older.
- 5 In September 2018, the Office of Inspector General (OIG) released a report indicating that many inpatient rehabilitation stays did not comply with all Medicare coverage and documentation requirements for reasonable and necessary care. OIG's analysis found that only 45 of 220 sampled stays met the requirements (Office of Inspector General 2018).
- 6 CMS's major revisions to the compliance threshold policy in 2004 were to (1) increase the number of conditions that count toward the threshold from 10 to 13 and (2) revise the qualifying criteria of major joint replacement—a condition that was commonly treated in IRFs at that time—such that only a certain subset of patients with that condition would count toward the compliance threshold.
- 7 Other orthopedic conditions, cardiac conditions, and debility are not among the 13 conditions that count toward the compliance threshold, but such cases may count if they have specified comorbidities. Prior Commission analysis of 2013 data showed that less than a third of these cases met the compliance threshold.
- 8 This analysis of FFS IRF claims and assessment data from 2013 excluded cases that were not preceded by an acute care hospital stay within 30 days of the IRF admission.
- 9 If we approximate marginal cost as total Medicare cost minus fixed building and equipment cost, then:

$$\text{Marginal profit} = (\text{payments for Medicare services} - (\text{total Medicare costs} - \text{fixed building and equipment costs})) / \text{Medicare payments}$$

The result is a lower bound on the marginal profit because we ignore any potential labor costs that are fixed.
- 10 The potentially avoidable readmissions we measure are respiratory-related illness (pneumonia, influenza, bronchitis, chronic obstructive pulmonary disease, and asthma); sepsis; congestive heart failure; fractures or fall with a major injury; urinary tract or kidney infection; blood pressure management; electrolyte imbalance; anticoagulant therapy complications; diabetes-related complications; cellulitis or wound infection; pressure ulcer; medication error or adverse drug reaction; and delirium.
- 11 Our measure of community discharge does not give IRFs credit for discharging a Medicare beneficiary to the community if the beneficiary is subsequently readmitted to an acute care hospital within 30 days of the IRF discharge.
- 12 The market basket increase for fiscal year 2018 was 2.6 percent. That update would have been offset by PPACA-required reductions totaling 1.35 percentage points, for a net update of 1.25 percent. However, Section 411(b) of MACRA requires that the increase factor for fiscal year 2018 be 1.0 percent.
- 13 This market basket forecast was made in the third quarter of 2018. When setting the update for fiscal year 2020, CMS will use the most recent forecast available at that time, which may differ from the number we report here.

References

- Barclays. 2018. *Health care services: Initiating coverage of hospital sector*. August 14.
- Conn, J. 2017. Consumers fueling outpatient construction. *Modern Healthcare*, March.
- Dejong, G., S. D. Horn, R. J. Smout, et al. 2009. Joint replacement rehabilitation outcomes on discharge from skilled nursing facilities and inpatient rehabilitation facilities. *Archives of Physical Medicine and Rehabilitation* 90, no. 8 (August): 1284–1296.
- Deutsch, A., C. V. Granger, R. C. Fiedler, et al. 2005. Outcomes and reimbursement of inpatient rehabilitation facilities and subacute rehabilitation programs for Medicare beneficiaries with hip fracture. *Medical Care* 43, no. 9 (September): 892–901.
- Galloway, R. V., C. V. Granger, A. M. Karmarkar, et al. 2013. The Uniform Data System for Medical Rehabilitation: Report of patients with debility discharged from inpatient rehabilitation programs in 2000–2010. *American Journal of Physical Medicine & Rehabilitation* 92, no. 1 (January): 14–27.
- Grabowski, D. C., K. A. Stewart, S. M. Broderick, et al. 2008. Predictors of nursing home hospitalization: A review of the literature. *Medical Care Research and Review* 65, no. 1 (February): 3–39.
- HealthSouth Corporation. 2018. Annual report (Form 10–K) for fiscal year ending December 31, 2017. Filing submitted to the Securities and Exchange Commission. February 28.
- Kane, R. L., G. Keckhafer, S. Flood, et al. 2003. The effect of Evercare on hospital use. *Journal of the American Geriatrics Society* 51, no. 10 (October): 1427–1434.
- Konetzka, R. T., W. Spector, and M. R. Limcangco. 2008a. Reducing hospitalizations from long-term care settings. *Medical Care Research and Review* 65, no. 1 (February): 40–66.
- Konetzka, R. T., S. C. Stearns, and J. Park. 2008b. The staffing-outcomes relationship in nursing homes. *Health Services Research* 43, no. 3 (June): 1025–1042.
- Kramer, A., M. Lin, R. Fish, et al. 2015. *Development of inpatient rehabilitation facility quality measures: Potentially avoidable readmissions, community discharge, and functional improvement*. Report prepared for the Medicare Payment Advisory Commission. Washington, DC: MedPAC.
- Lau, D. T., J. D. Kasper, D. E. Potter, et al. 2005. Hospitalization and death associated with potentially inappropriate medication prescriptions among elderly nursing home residents. *Archives of Internal Medicine* 165, no. 1 (January 10): 68–74.
- Medicare Payment Advisory Commission. 2018. MedPAC comment on CMS’s proposed rule on the inpatient rehabilitation facility PPS for FY 2019. June 25.
- Medicare Payment Advisory Commission. 2016. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Mustard, C. A., and T. Mayer. 1997. Case-control study of exposure to medication and the risk of injurious falls requiring hospitalization among nursing home residents. *American Journal of Epidemiology* 145, no. 8 (April 15): 738–745.
- Office of Inspector General, Department of Health and Human Services. 2018. *Many inpatient rehabilitation facility stays did not meet Medicare coverage and documentation requirements*. A–01–15–00500. Washington, DC: OIG.
- Office of the Actuary, Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017. Personal communication of author with Theresa Bean, November 1.
- Ottenbacher, K. J., A. Karmarkar, J. E. Graham, et al. 2014. Thirty-day hospital readmission following discharge from postacute rehabilitation in fee-for-service Medicare patients. *Journal of the American Medical Association* 311, no. 6 (February 12): 604–614.
- Schneider, J. C., P. Gerrard, R. Goldstein, et al. 2013. The impact of comorbidities and complications on burn injury inpatient rehabilitation outcomes. *Physical Medicine and Rehabilitation* 5, no. 2 (February): 114–121.
- Schneider, J. C., P. Gerrard, R. Goldstein, et al. 2012. Predictors of transfer from rehabilitation to acute care in burn injuries. *Journal of Trauma and Acute Care Surgery* 73, no. 6 (December): 1596–1601.

C H A P T E R

11

Long-term care hospital services

R E C O M M E N D A T I O N

- 11** For 2020, the Secretary should increase the fiscal year 2019 Medicare base payment rates for long-term care hospitals by 2 percent.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Long-term care hospital services

Chapter summary

Long-term care hospitals (LTCHs) provide care to beneficiaries who need hospital-level care for relatively extended periods. To qualify as an LTCH for Medicare payment, a facility must meet Medicare's conditions of participation for acute care hospitals and, for certain Medicare patients, have an average length of stay greater than 25 days. In 2017, Medicare spent \$4.5 billion on care provided in LTCHs nationwide. About 103,000 fee-for-service (FFS) beneficiaries had roughly 116,000 LTCH stays. On average, Medicare FFS beneficiaries accounted for about two-thirds of LTCHs' discharges.

In fiscal year 2016, CMS began implementing a dual payment-rate structure for LTCHs that decreased payment rates for certain cases that do not meet criteria specified in the Pathway for SGR Reform Act of 2013. The extent to which LTCHs alter admission patterns for cases that meet the criteria and are thus paid the standard LTCH prospective payment system rate will ultimately determine the industry's financial performance under Medicare. We focus some analyses on a cohort of LTCHs with a high share (85 percent or more) of cases meeting the criteria in 2017, consistent with the goals of the dual payment-rate policy.

Assessment of payment adequacy

Beneficiaries' access to care—We have no direct measures of beneficiaries' access to needed LTCH services. While we consider the capacity and supply

In this chapter

- Are Medicare payments adequate in 2019?
- How should Medicare payments change in 2020?

of LTCH providers and changes over time in the volume of services they furnish, we expect reductions in these metrics since the implementation of the new dual payment-rate structure that began in fiscal year 2016, as mandated by the Pathway for SGR Reform Act of 2013.

- ***Capacity and supply of providers***—The number of LTCHs began to decrease in 2013, but the decline has been more rapid since the implementation of the dual payment-rate structure. We estimate that the number of LTCHs decreased by 4.1 percent from 2016 to 2017 and by an additional 2.3 percent from 2017 to 2018. However, the average LTCH occupancy rate was 64 percent in 2017, suggesting that LTCHs have adequate capacity in the markets they serve.
- ***Volume of services***—From 2016 to 2017, the number of LTCH cases decreased by 7.3 percent, continuing a four-year trend that began in 2013. The number of LTCH cases per FFS beneficiary also declined during this period (2016 to 2017) by 7 percent. However, from 2016 to 2017, the number of LTCH cases that met the criteria per 10,000 FFS beneficiaries increased by 3.6 percent.
- ***Marginal profit***—In 2017, marginal profit, an indicator of whether LTCHs with excess capacity have an incentive to admit Medicare patients, averaged about 14 percent across all LTCHs. The marginal profit in 2017 was about 6 percentage points lower than in 2016, reflecting payment reductions associated with the implementation of the dual payment-rate structure. For LTCHs with a high share (85 percent or more) of cases meeting the criteria specified in the Pathway for SGR Reform Act of 2013, marginal profit totaled 16 percent, about 1 percentage point lower than in 2016.

Quality of care—Consistent with prior years, non-risk-adjusted rates of direct LTCH to acute care hospital readmission, death in the LTCH, and death within 30 days of discharge were stable across all LTCH cases.

Providers' access to capital—LTCHs have begun altering their cost structures and referral patterns in response to the dual payment-rate structure, which reduces payment for cases that do not meet the criteria specified in law. This transition, coupled with payment reductions to annual updates required by statute, have limited opportunities for growth in the near term and reduced the industry's need for capital.

Medicare payments and providers' costs—From 2012 through 2015, Medicare payments increased, but more slowly than provider costs. Payments per case remained stable from 2015 through 2016, resulting in an aggregate 2016 Medicare margin of 3.9 percent across all cases. The first year that all LTCHs began transitioning to the dual payment-rate structure was 2017. The extent to which each

facility admits cases that meet the criteria directly impacts the Medicare payments it receives and may affect the costs incurred in providing care. In 2017, the aggregate Medicare margin was –2.2 percent. However, when we consider a cohort of LTCHs with a high share of cases that met the criteria, and thus admission patterns consistent with the goals of the dual payment-rate structure, the Medicare margin remained positive. Indeed, in 2017, LTCHs with 85 percent or more of Medicare cases that met the criteria had a Medicare margin of 4.6 percent. We expect continued changes in admission patterns and cost structures of LTCHs in response to the implementation of the dual payment-rate structure. We project that LTCHs’ aggregate Medicare margin for facilities with more than 85 percent of Medicare discharges that meet the criteria will be 1.2 percent in 2019.

On the basis of these indicators, and in the context of recent changes in payment policy, our recommendation for fiscal year 2020 would increase the 2019 LTCH payment rate by 2 percent. This update supports LTCHs in their provision of safe and effective care for Medicare beneficiaries meeting the criteria for payment at the standard LTCH prospective payment system rate. ■

Background

Patients with chronic critical illness—those who exhibit metabolic, endocrine, physiologic, and immunologic abnormalities that result in profound debilitation and often ongoing respiratory failure—frequently need hospital-level care for extended periods. Some are treated in long-term care hospitals (LTCHs). These facilities can be freestanding or colocated with other hospitals as hospitals within hospitals or satellites. To qualify as an LTCH for Medicare payment, a facility must meet Medicare’s conditions of participation for acute care hospitals (ACHs) and, for certain Medicare patients, have an average length of stay greater than 25 days.¹ In aggregate, LTCHs had an average length of stay of 26.3 days; by comparison, the average Medicare length of stay in ACHs is about 5 days. In 2017, Medicare spent \$4.5 billion on care provided in LTCHs nationwide. About 103,000 beneficiaries had roughly 116,000 LTCH stays. On average, Medicare fee-for-service (FFS) beneficiaries accounted for about two-thirds of LTCHs’ discharges.

Since October 2002, Medicare has paid LTCHs prospective per discharge rates based primarily on the patient’s diagnosis and the facility’s wage index.² Under this prospective payment system (PPS), LTCH payment rates are based on the Medicare severity long-term care diagnosis related group (MS–LTC–DRG) patient classification system, which groups patients primarily according to diagnoses and procedures. MS–LTC–DRGs include the same groupings used in ACHs paid under the inpatient PPS (IPPS) but have relative weights specific to LTCH patients that reflect the average relative costliness of cases in the group compared with that of the average LTCH case. The LTCH PPS has outlier payments for patients who are extraordinarily costly.³ The LTCH PPS pays differently for short-stay outlier cases (patients with shorter-than-average lengths of stay), reflecting CMS’s contention that Medicare should adjust payment rates for patients with relatively short stays to reflect the reduced costs of caring for them (see text box discussing short-stay outliers, p. 286).

LTCHs are not distributed uniformly across the country. Due in part to state certificate-of-need programs that prevent or limit the opening of certain types of health care facilities in some states, many areas have no LTCHs, while others have a high concentration of them, underscoring the fact that some medically complex patients can be treated appropriately in other settings.

LTCHs historically have constituted about 1 percent of post-acute care (PAC) use; however, this share varies substantially across ACH diagnoses. For example, about 60 percent of beneficiaries requiring a tracheostomy with more than 96 hours of ventilator support in an ACH were discharged to an LTCH, as were about 15 percent of beneficiaries discharged with either septicemia or respiratory failure requiring mechanical ventilation for more than 96 hours. The variation in LTCH use suggests that many Medicare beneficiaries receive care during an ACH stay or during an ACH stay that is subsequently followed by a PAC stay in a non-LTCH setting. However, in 2013, close to 80 percent of ventilator-dependent beneficiaries using PAC were treated in LTCHs compared with 14 percent in skilled nursing facilities (SNFs) (Medicare Payment Advisory Commission 2017a).

In fiscal year 2016, CMS began phasing in a payment change for LTCH cases that do not meet certain criteria specified in the Pathway for SGR Reform Act of 2013 (see text box on the development of the long-term care hospital dual payment-rate structure, pp. 288–289).⁴ Under this new dual payment-rate structure, Medicare cases are paid the standard LTCH PPS rate if the patient had an immediately preceding ACH stay that included 3 or more days in an intensive care unit (ICU) or if the patient received mechanical ventilation services for at least 96 hours in the LTCH. These cases are referred to as “cases meeting the criteria.” LTCH cases not meeting that specified criteria receive a “site-neutral” rate based on the lesser of an IPPS-comparable amount or 100 percent of the cost for the case. For the first four years of implementation, cases that do not meet the criteria receive payment of 50 percent of the standard LTCH PPS rate and 50 percent of the site-neutral rate. Given this phase-in period, the policy will not be fully in effect for all LTCH facilities until fiscal year 2021. However, data from fiscal year 2017 include the partial phase-in of the dual payment-rate structure across all LTCHs.

Because the impact of the dual payment-rate structure is expected to be substantial, we focus some analyses on LTCHs that have a high share of cases that meet the criteria, consistent with the goals of the dual payment-rate structure, which creates a financial disincentive for LTCHs to admit Medicare cases that do not meet the criteria. We define this subgroup of LTCHs as those with more than 85 percent of their Medicare cases meeting the criteria in 2017, accounting for about 30 percent of LTCHs.⁵

Payment for short-stay outliers in long-term care hospitals

In the long-term care hospital (LTCH) payment system, Medicare adjusts payments for cases with short stays. CMS defines a short-stay outlier (SSO) case as having a length of stay less than or equal to five-sixths of the geometric mean length of stay for the case type. The SSO policy reflects CMS's contention that patients with lengths of stay similar to those in acute care hospitals (ACHs) should be paid at rates comparable with the cases paid under the ACH inpatient prospective payment system (IPPS).

Previously, the Commission expressed concern regarding the financial incentives associated with the payment structure of the SSO policy and the inherent payment cliffs it created. Historically, Medicare paid LTCHs for SSO discharges based on the lesser of four payment calculations, including up to the full LTCH standard payment amount.⁶ This payment structure created large differences between the SSO payment and the full LTCH payment, resulting in a strong financial incentive for LTCHs to keep patients until their lengths of stay exceed the SSO threshold for the relevant case type. In its March 2017 report to the Congress, the Commission stated that CMS could reduce the financial incentives to increase a beneficiary's length of stay beyond the SSO threshold by better aligning

the incremental payments for short-stay cases to the provider's incremental costs.

Beginning in fiscal year 2018, CMS changed how LTCHs are paid for SSOs. Instead of paying LTCHs for SSO cases based on the lesser of four payment rates, CMS now pays a rate equal to an amount that is a blend of the IPPS amount for the Medicare severity–diagnosis related group and 120 percent of the LTCH per diem payment amount up to the full LTCH prospective payment system (PPS) standard federal payment rate. As the length of stay for the SSO increases, the blended payment includes an increasing share of payment attributable to the LTCH per diem. The longer the length of stay, the more closely payment resembles the full LTCH PPS amount, greatly reducing the payment cliff that existed under the prior policy. CMS also updated this policy to no longer differentiate between the SSO cases and cases with “very short” lengths of stay.

In fiscal year 2017, the prior SSO structure remained in place. Under this structure, 32.8 percent of LTCH discharges received SSO payment adjustments, an increase from 2016. This increase in part reflects reductions in the length of stay for cases that do not meet the criteria under the dual payment-rate structure. ■

Are Medicare payments adequate in 2019?

To address whether payments for 2019 are adequate to cover the costs that providers incur in furnishing services to Medicare beneficiaries, we examine several indicators of payment adequacy. Specifically, we assess beneficiaries' access to care (by examining the capacity and supply of LTCH providers, changes over time in the volume of services furnished, and providers' willingness to admit Medicare beneficiaries), quality of care, providers' access to capital, and the relationship between Medicare payments and providers' costs.

Beneficiaries' access to care: Expected reductions in supply and volume continue, without affecting access to care

We have no direct measures of beneficiaries' access to needed LTCH services. The absence of LTCHs in many areas of the country does not necessarily indicate an inadequacy of supply since beneficiaries in areas without LTCHs have access to similar services in other settings, including ACHs and some skilled nursing facilities (SNFs). However, in 2013, among PAC users requiring mechanical ventilation, close to 80 percent of these beneficiaries were treated in LTCHs (Medicare Payment Advisory Commission 2017a). In 2018, LTCHs were located in just 8.5 percent of counties, but these LTCHs

**TABLE
11-1****The number of LTCHs decreased in 2017**

Type of LTCH	Congressionally imposed moratorium		Congressionally imposed moratorium				Average annual change	
	2012	2013 ^a	2014 ^a	2015 ^a	2016	2017	2012-2016	2016-2017
LTCHs paid under the LTCH PPS ^b	421	416	413	412	411	394	-0.6%	-4.1%
LTCHs with valid cost reports ^b	426	411	399	392	407	398	-1.1	-2.2
Urban	401	385	373	373	389	378	^c	-2.8
Rural	25	26	26	19	18	20	^c	11.1
Nonprofit	78	78	73	66	71	71	-2.3	0.0
For profit	328	315	307	309	320	312	-0.6	-2.5
Government	20	18	19	17	16	15	-5.4	-6.3

Note: LTCH (long-term care hospital), PPS (prospective payment system). The Medicare, Medicaid, and SCHIP Extension Act of 2008 and subsequent legislation imposed a moratorium on new LTCHs and new LTCH beds in existing facilities from December 29, 2007, through December 28, 2012. The Pathway for SGR Reform Act of 2013 and subsequent legislation implemented a new moratorium from April 1, 2014, through September 30, 2017.

^aData for 2013 through 2015 should not be compared with prior or subsequent years because of an anomalous number of facilities that underwent an acquisition and changes in the cost reporting period.

^bData for hospitals paid under the LTCH PPS are from the Provider of Services file based on the applicable fiscal year. The count of hospitals with valid cost reports is based on each hospital's cost reporting period that most aligns with the fiscal year; however, this timing contributes to differences between the two facility counts.

^cIn addition to the anomalous numbers of facilities that underwent an acquisition and changes in the cost reporting period, there were new core-based statistical area codes for LTCHs that CMS adopted beginning fiscal year 2015. This change reclassified as urban several facilities previously classified as rural, and therefore the number of facilities between 2014 and 2015 should not be compared.

Source: MedPAC analysis of cost report data and the Medicare Provider of Services file from CMS.

served beneficiaries from over 90 percent of counties nationwide. A recent study found that 80 percent of Medicare beneficiaries reside in a hospital referral region with at least one LTCH (National Association of Long Term Care Hospitals 2017). At the median, beneficiaries traveled about 17 miles to receive LTCH care. About 10 percent of beneficiaries traveled in excess of 90 miles. While changes in the overall capacity and supply of LTCH providers and in the volume of services they furnish might typically suggest declining access to care, we fully expect reductions in these metrics following the implementation of the dual payment-rate structure that began in fiscal year 2016.

Capacity and supply of providers: Number of LTCHs began to decrease in 2013

The Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) and subsequent legislation imposed

a limited moratorium on new LTCHs and new beds in existing LTCHs from December 29, 2007, through December 28, 2012. During that time, new LTCHs were able to enter the Medicare program only if they met specific exceptions to the moratorium.⁷ The Pathway for SGR Reform Act of 2013 and subsequent legislation implemented a new moratorium from April 1, 2014, through September 30, 2017.⁸

We examined Medicare cost report data to assess the number of LTCH beds and facilities. Growth in the number of LTCHs filing Medicare cost reports slowed considerably in the later years of the moratorium (Table 11-1). Between 2012 and 2015, a larger-than-usual number of facilities made changes to their cost reporting period, thereby affecting the number of facilities with sufficient cost report data to be used for this payment adequacy analysis.⁹ Between 2012 and 2017, the number

Development of the long-term care hospital dual payment-rate structure

The Pathway for SGR Reform Act of 2013 mandated changes to the long-term care hospital (LTCH) prospective payment system, including limiting the standard LTCH payment rate to cases that spent at least three days in an intensive care unit (ICU) during an immediately preceding acute care hospital (ACH) stay or to discharges that received an LTCH principal diagnosis indicating prolonged mechanical ventilation. In March 2014, the Commission recommended that the LTCH payment system be reformed to better align payments for both chronically critically ill (CCI) and non-CCI cases across LTCH and ACH settings.

Defining an LTCH patient

For almost two decades, given the variation in LTCH use across the country and the relatively high cost of providing care to Medicare beneficiaries in LTCHs, policymakers and researchers alike have attempted to define the type of patient most appropriate for the LTCH setting. Recent research using data from 2012 showed that, after adjusting for case mix, about half of the variation in LTCH use is explained by patient factors, including the presence of a tracheostomy. This research found that the remaining variation in LTCH use is explained by regional and hospital factors, including the proximity of a beneficiary's discharging ACH to an LTCH (Makam et al. 2018).

Defining the most medically complex patients who might be the most appropriate for LTCH-level care has been elusive. Some clinicians have described CCI patients as exhibiting metabolic, endocrine, physiologic, and immunologic abnormalities that result in profound debilitation and often ongoing respiratory failure (Nierman and Nelson 2002). Many of these abnormalities and debilities in hospital patients are not readily identifiable using available administrative data. However, the research literature is consistent in describing such patients as having long ACH stays with heavy use of intensive care services. Another study defined LTCH-appropriate patients as ventilator-dependent with major comorbidities, patients who

have multiple organ failures, and patients with septicemia and other complex infections (Dalton et al. 2012).

Analysis of findings from the Post-Acute Care Payment Reform Demonstration, which tested the use of a standardized patient assessment tool in various post-acute care settings, revealed meaningful differences in the intensity of nursing care and nutritional, rehabilitation, and physician services between LTCH users and other post-acute care (PAC) users. Length of time in an ICU during an immediately preceding ACH stay was a distinguishing characteristic of patients who used LTCHs as opposed to patients who used only skilled nursing facilities, inpatient rehabilitation facilities, or care provided by home health agencies. Post-acute care episodes that had a preceding ACH ICU stay of seven days or more were found only among LTCH users (Gage et al. 2011).

LTCH care is commonly used for other, less acutely ill, patients as well. These patients may require lengthy hospitalizations and subsequent post-acute care, but they do not have (or no longer have) intensive nursing care needs (Centers for Medicare & Medicaid Services 2013). Research has consistently shown that caring for these lower acuity patients in LTCHs increases Medicare expenditures without demonstrable improvements in quality of care or outcomes (Koenig et al. 2015). Yet such patients have historically made up a substantial share of cases in most LTCHs.

Commission recommendation for long-term care hospitals

The Commission has maintained that LTCHs should serve only the most medically complex patients and has determined, with general agreement from industry representatives, that the best available proxy for intensive resource needs in LTCH patients is ICU length of stay during an immediately preceding ACH stay. The Commission has also long held that payments to providers should be properly aligned with patients' service needs. Further, subject to risk differentials, payment for the same services should

(continued next page)

Development of the long-term care hospital dual payment-rate structure (cont.)

be comparable regardless of where the services are provided.

The Commission recommended that the Congress limit standard LTCH payments to cases that spent eight or more days in an ICU during an immediately preceding ACH stay (Medicare Payment Advisory Commission 2014). The Commission's analysis of inpatient prospective payment system (IPPS) claims data found that cases with eight or more days in an ICU accounted for about 6 percent of all Medicare IPPS discharges and had a geometric mean cost per discharge that was four times that of IPPS cases with seven or fewer ICU days. Further, these cases were concentrated in a small number of Medicare severity–diagnosis related groups that correspond with descriptions of LTCH patients provided by critical care clinicians (Dalton et al. 2012).

Setting the ICU length of stay threshold for CCI cases at eight days captures a large share of LTCH cases requiring prolonged mechanical ventilation—a service specialty of many LTCHs. However, the Commission was concerned that LTCH care could be appropriate for some patients requiring mechanical ventilation even if they did not spend eight or more days in an ICU during an immediately preceding ACH stay. The Commission therefore recommended that patients requiring prolonged ventilation care qualify for CCI status. For LTCH cases that did not spend eight or more days in an ICU during an immediately preceding ACH stay, the Commission recommended that the Secretary of Health and Human Services set the payment rates equal to those of ACHs. The Commission recommended that savings from this policy be used to create additional inpatient outlier payments for CCI cases in IPPS hospitals.

Congressionally mandated patient-level criteria

The Pathway for SGR Reform Act of 2013 established “site-neutral” payments for certain cases in LTCHs, beginning in fiscal year 2016. Under the law, the LTCH payment rate applies only to qualifying LTCH discharges (cases that meet the criteria) that had an

ACH stay immediately preceding LTCH admission and for which:

- the ACH stay included at least 3 days in an intensive care unit or
- the discharge was assigned to the Medicare severity long-term care diagnosis related group (MS–LTC–DRG) based on the receipt of mechanical ventilation services for at least 96 hours.

All other LTCH discharges (cases that do not meet the criteria)—including any discharges assigned to psychiatric or rehabilitation MS–LTC–DRGs, regardless of intensive care unit use—are paid a site-neutral amount (an amount based on either Medicare's IPPS or 100 percent of the costs of the case, whichever is lower). These site-neutral payments are being phased in over a four-year period. In cost reporting periods starting fiscal year 2016, cases that do not meet the criteria receive a blended rate of one-half the standard LTCH payment and one-half the site-neutral payment. In cost reporting periods starting on or after October 1, 2019, these cases will receive 100 percent of the site-neutral payment rate. Given LTCHs' varying cost reporting periods, the Commission expects fiscal year 2021 to be the first full year in which this policy is completely phased in.

Congressionally mandated facility-level criteria

To qualify as an LTCH for Medicare payment, a facility must meet Medicare's hospital conditions of participation and certain Medicare patients must have an average length of stay greater than 25 days. The Pathway for SGR Reform Act of 2013 loosens these criteria such that, beginning in fiscal year 2016, CMS calculates the LTCH average length of stay only for Medicare fee-for-service cases that are not paid the site-neutral rate. However, the Pathway for SGR Reform Act of 2013 requires that, for cost reporting periods starting on or after October 1, 2019, at least half of an LTCH's cases meet the criteria to continue to be paid the standard LTCH prospective payment system rate. ■

**TABLE
11-2****The number of Medicare LTCH cases and users
continued to decrease between 2016 and 2017**

	2012	2013	2014	2015	2016	2017	Average annual change		
							2012– 2015	2015– 2016	2016– 2017
Cases	140,463	137,827	133,984	131,129	125,586	116,424	–2.3%	–4.2%	–7.3%
Cases per 10,000 FFS beneficiaries	37.7	36.6	35.4	34.4	32.5	30.2	–3.0	–5.7	–7.0
Spending per FFS beneficiary	\$148.78	\$146.64	\$141.61	\$140.17	\$131.94	\$115.44	–2.0	–5.9	–12.5
Payment per case	\$39,493	\$40,070	\$40,015	\$40,719	\$40,656	\$38,253	1.0	–0.2	–5.9
Average length of stay (in days)	26.2	26.5	26.3	26.6	26.8	26.3	0.4	1.1	–2.2
Users	123,652	121,532	118,288	116,088	111,171	103,322	–2.1	–4.2	–7.1

Note: LTCH (long-term care hospital), FFS (fee-for-service).

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS and the annual reports of the Boards of Trustees of the Medicare trust funds.

of LTCHs with valid cost reports decreased by about 7 percent from 426 to 398, or about a 1.4 percent average annual decrease, roughly consistent with the 1.3 percent average annual decrease in hospitals paid under the LTCH PPS in the Provider of Services file.¹⁰ From 2017 to 2018, the number of LTCHs decreased by another 2.3 percent (data not shown), totaling a nearly 10 percent decline since 2012. Cost report data indicate that the number of LTCH beds nationwide decreased about 2.1 percent annually from 2012 through 2017 (data not shown).

Consistent with historical trends, the Commission estimates that, in 2017, more than 75 percent of LTCHs were for profit, and 95 percent were located in urban areas. In our analysis of urban and rural facilities, the data presented in Table 11-1 (p. 287) beginning in 2015 are not comparable with prior years because CMS adopted new core-based statistical area codes based on the 2010 census for LTCHs that year, in addition to the aforementioned anomalous cost reporting trends. This change reclassified as urban several facilities previously classified as rural.

Aggregate occupancy rates for LTCHs from 2012 through 2016 remained largely unchanged at 66 percent, and, historically, occupancy rates for for-profit LTCHs have

been 1 percentage point to 2 percentage points higher than for nonprofit LTCHs. However, in 2017, occupancy rates dropped to 64 percent, and the difference between occupancy rates at for-profit and nonprofit LTCHs widened. For-profit LTCHs had an occupancy rate of 65 percent compared with 59 percent for nonprofit LTCHs (data not shown). In aggregate, LTCHs with a high share of Medicare cases meeting the criteria had an occupancy rate of 69 percent in 2017.

Volume of services: Number of LTCH users decreased

Beneficiaries' use of LTCH services suggests that access is adequate. The volume of services provided by LTCHs has fluctuated in response to payment policy changes. Following a moratorium on new facilities and new beds in existing facilities, from 2012 through 2015, the number of LTCH cases per capita decreased by 3.0 percent (Table 11-2). From 2015 to 2016, as the new dual payment-rate structure was implemented, LTCH cases per 10,000 FFS beneficiaries further dropped by 5.7 percent and by 7.0 percent from 2016 to 2017. These decreases occurred, in part, because LTCHs changed their admitting practices to admit fewer cases that do not meet the criteria to be paid the standard LTCH PPS rate.

**TABLE
11-3****The volume and share of cases meeting the criteria for the standard LTCH PPS rate increased from 2016 to 2017**

	2015	2016	2017	Percent change	
				2015–2016	2016–2017
Cases meeting the criteria	72,429	72,318	74,666	–0.2%	3.2%
Share of all LTCH cases	55%	58%	64%		
Cases per 10,000 FFS beneficiaries	19.0	18.7	19.4	–1.7	3.6
Spending (in billions)	\$3.3	\$3.3	\$3.4	–0.1	3.0
Spending per FFS beneficiary	\$87.90	\$86.40	\$89.30	–1.7	3.4
Payment per case	\$46,217	\$46,223	\$46,127	0.0	–0.2
Length of stay (in days)	28.5	27.9	27.9	–2.0	–0.1

Note: LTCH (long-term care hospital), PPS (prospective payment system), FFS (fee for service). “Cases meeting the criteria” refers to Medicare discharges that meet the criteria specified in the Pathway for SGR Reform Act of 2013 to be paid the standard LTCH PPS rate.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS and the annual reports of the Boards of Trustees of the Medicare trust funds.

Since 2015, the share of Medicare cases in LTCHs meeting the criteria increased by 9 percentage points to 64 percent in 2017, driven primarily by a reduction in volume of cases not meeting the criteria (Table 11-3). From 2012 through 2017, the total number of cases meeting the criteria in LTCHs remained stable, with a decrease occurring between 2014 and 2015 but an increase between 2016 and 2017. Controlling for changes in the number of FFS beneficiaries, we found the number of LTCH cases meeting the criteria increased by 3.6 percent from 2016 to 2017.

In 2017, Medicare FFS beneficiaries accounted for 63 percent of LTCH discharges and just over half of patient days in aggregate, representing a slight decline in the share of Medicare FFS discharges and patient days following a period of relative stability since 2010. In 2016, dual-eligible beneficiaries (enrolled in both Medicare and Medicaid) accounted for about 45 percent of FFS Medicare days (data not shown).

Compared with all Medicare beneficiaries, those admitted to LTCHs are disproportionately disabled (under age 65), over age 85, or diagnosed with end-stage renal disease. They are also more likely to be African American.

The higher rate of LTCH use by African American beneficiaries may be due to the concentration of LTCHs in areas of the country with larger African American populations (Dalton et al. 2012, Kahn et al. 2010). Another contributing factor may be a greater incidence of critical illness in this population (Mayr et al. 2010). At the same time, African American Medicare beneficiaries may be more likely to opt for LTCH care since they are less likely than White beneficiaries to elect hospice care (Medicare Payment Advisory Commission 2017b).

LTCH patient discharges are concentrated in a relatively small number of diagnosis groups. In fiscal year 2017, the top 20 LTCH diagnoses made up 63 percent of all LTCH discharges. The most frequently occurring diagnosis was pulmonary edema and respiratory failure (Medicare severity–long-term care diagnosis related group (MS–LTC–DRG) 189). Over 35 percent of LTCH cases were diagnoses that included respiratory conditions, an increase from 2016.¹¹

Not unexpectedly, the patient diagnoses become even more concentrated when we consider cases from the cohort of LTCHs with the highest share of cases (85 percent or more) meeting the criteria for the standard

**TABLE
11-4**

Among LTCHs with a high share of cases meeting the criteria for the standard LTCH PPS rate, the top 20 MS-LTC-DRGs made up 77 percent of discharges in 2017

MS-LTC-DRG	Description	Discharges	Share of cases
189	Pulmonary edema and respiratory failure	5,888	22.1%
207	Respiratory system diagnosis with ventilator support 96+ hours	5,530	20.8
208	Respiratory system diagnosis with ventilator support ≤96 hours	1,157	4.4
871	Septicemia without ventilator support 96+ hours with MCC	1,021	3.8
949	Aftercare with CC/MCC	803	3.0
166	Other respiratory system OR procedures with MCC	681	2.6
682	Renal failure with MCC	629	2.4
4	Tracheostomy with ventilator support 96+ hours or primary diagnosis except face, mouth and neck without major OR procedure	620	2.3
981	Extensive OR procedure unrelated to principal diagnosis with MCC	529	2.0
539	Osteomyelitis with MCC	425	1.6
177	Respiratory infections and inflammations with MCC	405	1.5
592	Skin ulcers with MCC	396	1.5
190	Chronic obstructive pulmonary disease with MCC	360	1.4
862	Postoperative and post-traumatic infections with MCC	348	1.3
314	Other circulatory system diagnoses with MCC	330	1.2
919	Complications of treatment with MCC	313	1.2
559	Aftercare, musculoskeletal system, and connective tissue with MCC	297	1.1
291	Heart failure and shock with MCC	291	1.1
56	Degenerative nervous system disorders with MCC	281	1.1
371	Major gastrointestinal disorders and peritoneal infections with MCC	224	0.8
Top 20 MS-LTC-DRGs		20,528	77.2

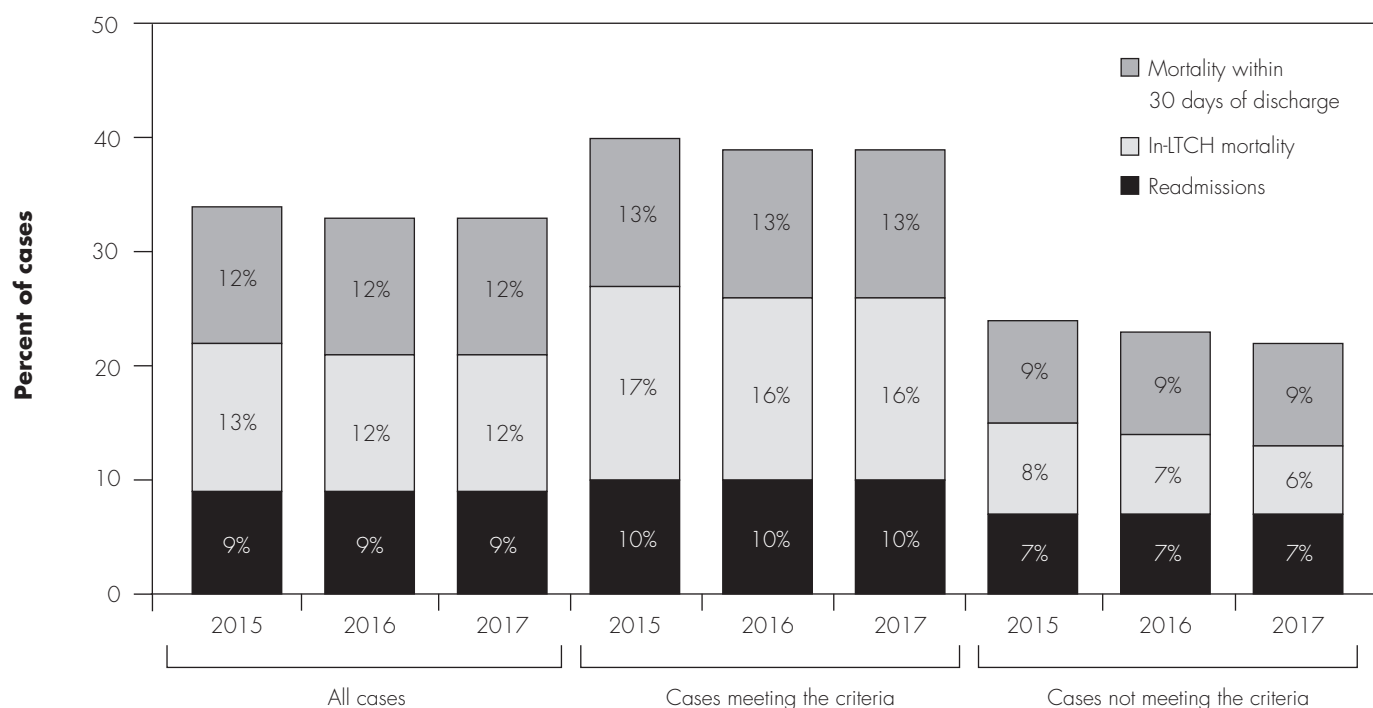
Note: MS-LTC-DRG (Medicare severity–long-term care diagnosis related group), LTCH (long-term care hospital), PPS (prospective payment system), MCC (major complication or comorbidity), CC (complication or comorbidity), OR (operating room). MS-LTC-DRGs are the case-mix system for LTCH facilities. “Cases meeting the criteria” refers to Medicare discharges that meet the criteria specified in the Pathway for SGR Reform Act of 2013 to be paid the standard LTCH PPS rate.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

LTCH PPS rate in 2017. For these LTCHs, the top 20 diagnoses made up 77 percent of discharges (Table 11-4).¹² The top two diagnoses, pulmonary edema and respiratory failure and respiratory system diagnosis with ventilator support, accounted for almost 43 percent of all discharges in the subset of LTCHs with a high share of Medicare cases that met the criteria in 2017, compared with less than 30 percent of discharges across all LTCHs. Further, more than 55 percent of these cases involved diagnoses that were respiratory conditions or involved prolonged mechanical ventilation in the cohort of LTCHs with a high share of cases meeting the criteria.

Financial incentives to serve Medicare beneficiaries across LTCHs

Another measure of access is whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider with sufficient capacity has a financial

**FIGURE
11-1****Rates of unadjusted quality measures remain stable**

Note: LTCH (long-term care hospital). "Cases meeting the criteria" refers to Medicare discharges that meet the criteria specified in the Pathway for SGR Reform Act of 2013 to qualify for the standard LTCH prospective payment system rate. "Cases not meeting the criteria" refers to Medicare discharges that do not meet the criteria specified in the Pathway for SGR Reform Act of 2013. Results are preliminary and subject to change.

Source: MedPAC analysis of Medicare Provider Analysis and Review and enrollment data from CMS.

incentive to increase its volume of Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries.¹³

In 2017, the average LTCH marginal profit was about 14 percent, down from almost 20 percent in 2016. This decrease is not unexpected given the industry-wide changes that are occurring as a result of the congressionally mandated implementation of the dual payment-rate structure. However, the change in marginal profit was much smaller for LTCHs with a high share of Medicare cases meeting the criteria. For these LTCHs, marginal profit in 2017 was about 16 percent, 1 percentage point lower than in 2016. Both statistics suggest that LTCHs with available beds continue to have a financial incentive to increase their occupancy rates with Medicare beneficiaries who meet the criteria, representing a positive indicator of access.

Quality of care: Meaningful measures becoming available; trends for unadjusted indicators remain stable

The Commission historically has assessed aggregate quality of care trends by examining three claims-calculated measures: unadjusted in-facility mortality rates, mortality within 30 days postdischarge, and direct ACH readmissions from LTCHs. LTCHs began reporting a limited set of quality measures to CMS in fiscal year 2013 and recently started publicly reporting some risk-adjusted quality measures for LTCHs that are included in our discussion.

Aggregate unadjusted quality measures

For this report, we continued to analyze unadjusted readmission and mortality rates for LTCH cases from 2015 through 2017. We generally found stable rates of readmissions to ACHs and stable mortality rates both in the facility and 30 days postdischarge (Figure 11-1). However, we caution that these measures are not risk

**TABLE
11-5**

Among cases meeting the criteria, rates of unadjusted measures varied across diagnoses related to respiratory illness or prolonged use of mechanical ventilation, 2017

MS-LTC- DRG	Description	Readmission rate	In-LTCH mortality rate	30-day post discharge mortality rate	Total mortality (in-LTCH plus 30-day post discharge)
4	Tracheostomy with ventilator support 96+ hrs or primary diagnosis except face, mouth and neck without major OR procedure	5%	29%	14%	43%
166	Other respiratory system OR procedures with MCC	11	21	16	37
177	Respiratory infections and inflammations with MCC	7	13	14	27
189	Pulmonary edema and respiratory failure	7	15	14	29
190	Chronic obstructive pulmonary disease with MCC	6	10	15	25
207	Respiratory system diagnosis with ventilator support 96+ hours	12	22	14	36
208	Respiratory system diagnosis with ventilator support ≤96 hours	22	30	15	45
870	Septicemia with ventilator support 96+ hours with MCC	9	38	12	50
	Total diagnoses related to respiratory illness or using prolonged mechanical ventilation	10	20	14	34

Note: LTCH (long-term care hospital), OR (operating room), MCC (major complication or comorbidity). "Cases meeting the criteria" refers to Medicare discharges that meet the criteria specified in the Pathway for SGR Reform Act of 2013 to be paid the standard LTCH prospective payment system rate.

Source: MedPAC analysis of Medicare Provider Analysis and Review and enrollment data from CMS.

adjusted, so patient characteristics were not taken into account when calculating rates, and trends may therefore be muted or exaggerated by changes in patient mix over time. In aggregate, in 2017, 9 percent of LTCH cases were readmitted to an ACH directly from the LTCH, 12 percent died in the LTCH, and another 12 percent died within 30 days of discharge from the LTCH (Figure 11-1, p. 293). The rates have been stable since 2015.

Not unexpectedly, given differences in patient severity, the unadjusted rates for the three quality measures varied depending on whether the case met the criteria, but the rates were stable over time. In 2017, for cases meeting the criteria, 10 percent were readmitted to the ACH directly from the LTCH, 16 percent died in the LTCH, and 13 percent died within 30 days of discharge from the LTCH. Thus, combined, almost 40 percent of LTCH cases meeting the criteria in 2017 were readmitted or died in the LTCH or within 30 days of discharge.

By comparison, cases not meeting the criteria had lower rates of readmission and mortality than cases

meeting the criteria. The rates of readmission and 30-day postdischarge mortality were consistent from 2015 to 2017, but the share of cases that died in the LTCH appears to have dropped. Six percent of cases not meeting the criteria died during the LTCH stay in 2017, down from 8 percent in 2015. Given that these measures are not adjusted for patient risk factors, this decrease could be attributable to improvements in quality or changes in case mix or admission patterns. We will monitor these cases as the dual payment-rate structure is fully phased in.

For cases meeting the criteria, the unadjusted readmission and mortality rates varied markedly by respiratory diagnosis group (Table 11-5). For example, among patients with a principal diagnosis of septicemia with prolonged ventilator support with major complication or comorbidity (MCC) (MS-LTC-DRG 870), 38 percent died in the LTCH and another 12 percent died within 30 days of discharge. By comparison, among patients with a primary diagnosis of chronic obstructive pulmonary disease with MCC (MS-LTC-DRG 190), 10 percent died in the LTCH and another 15 percent died within 30 days of discharge.

**TABLE
11-6****Measures collected for the LTCH Quality Reporting Program for 2019**

Measure name	Collection start date	Collection instrument	Publicly available
Catheter-associated urinary tract infection outcome measure	10/01/12	NHSN	12/2016
Central line-associated bloodstream infection outcome measure	10/01/12	NHSN	12/2016
Percent of residents or patients who were assessed and appropriately given the seasonal influenza vaccine	10/01/14	LTCH CARE	12/2017
Influenza vaccination coverage among healthcare personnel	10/01/14	NHSN	12/2017
Facility-wide inpatient hospital-onset Clostridium difficile infection outcome measure	01/01/15	NHSN	12/2017
Application of percent of residents experiencing one or more falls with major injury (long stay)	04/01/16	LTCH CARE	09/2018
Percent of LTCH patients with an admission and discharge functional assessment and a care plan that addresses function	04/01/16	LTCH CARE	09/2018
Discharge to community		Claims	09/2018
Medicare spending per beneficiary		Claims	09/2018
Potentially preventable 30-day post-discharge readmission		Claims	
Change in mobility among LTCH patients requiring ventilator support	04/01/16	LTCH CARE	
Application of percent of LTCH patients with an admission and discharge functional assessment and a care plan that addresses function	04/01/16	LTCH CARE	
Drug regimen review conducted with follow-up for identified issues	07/01/18	LTCH CARE	
Changes in skin integrity PAC: Pressure ulcer/injury	07/01/18	LTCH CARE	
Compliance with spontaneous breathing trial by Day 2 of the LTCH stay	07/01/18	LTCH CARE	
Ventilator liberation rate	07/01/18	LTCH CARE	

Note: LTCH (long-term care hospital), NHSN (National Healthcare Safety Network), LTCH CARE (LTCH Continuity Assessment Record and Evaluation), PAC (post-acute care).

Source: CMS LTCH quality reporting measure information and CMS LTCH Compare website.

Overall, 34 percent of patients meeting the criteria with a diagnosis related to respiratory illness or using prolonged mechanical ventilation died within the LTCH or within 30 days of discharge.

Adjusted measures for quality reporting

Medicare's LTCH Quality Reporting Program (QRP) for fiscal year 2019 includes 16 measures (Table 11-6). CMS currently reports some of these measures on its LTCH Compare website, which is updated quarterly. The data elements needed to calculate the LTCH quality measures are collected from three sources, including a patient assessment instrument called the Continuity Assessment Record and Evaluation (CARE) Data Set, the Centers for Disease Control and Prevention's internet-based surveillance system (National Healthcare Safety

Network (NHSN)), and Medicare claims data. CMS has published two years of outcomes data for four outcome measures, including rates of pressure ulcers, catheter-associated urinary tract infection (CAUTI), central line-associated blood stream infection (CLABSI), and 30-day all-cause unplanned readmissions. For several measures, CMS compares each facility's risk-adjusted rate with the national rate.

The rate of pressure ulcers reported by LTCHs for the data collection period of October 1, 2016, through September 30, 2017, was relatively low at 1.3 percent (Table 11-7, p. 296). The risk-adjusted readmission rate was about 25 percent and remained stable between 2015 and 2016. CMS has replaced this measure with a potentially preventable 30-day postdischarge readmission measure; however, the

**TABLE
11-7****Trends in selected risk-adjusted quality measures from the CMS LTCH Quality Reporting Program are mixed**

Measure	October 1, 2015 through September 30, 2016	October 1, 2016 through September 30, 2017
Pressure ulcer	1.8%	1.3%
30-day unplanned readmission*	24.6%	25.0%
Catheter-associated urinary tract infection (standardized infection ratio)	0.94	0.98
Central line–associated bloodstream infection (standardized infection ratio)	0.94	0.87

Note: LTCH (long-term care hospital). The standardized infection ratio is a measure of the share of actually observed cases with the infection compared with the expected number of cases after adjusting for certain risk factors. A ratio of 1.0 indicates the rate is equal to what was expected, below 1.0 indicates the rate is lower than expected, and above 1.0 indicates the rate is higher than expected.

*The 30-day unplanned readmission measure is based on data collected from claims data over a two-year period. The most recently published unique time periods include discharges occurring January 1, 2013, through December 31, 2014, and January 1, 2014, through December 31, 2015.

Source: CMS LTCH Compare website.

data are not yet publicly available.¹⁴ The standardized infection ratios of CAUTI and CLABSI continued to be lower than expected (less than 1.0, using a measure of the share of actual cases observed with the infection compared with the expected number of cases) at 0.98 and 0.87, respectively, for fiscal year 2017. These figures mean that the rate of CAUTI was about 2 percent lower than expected, while the rate of CLABSI was about 13 percent lower than expected after adjusting for certain risk factors. We urge caution in interpreting the precise ratios and changes since 2016, given that changes in facilities' testing and reporting for such infections could have altered the rate without any meaningful change in the number of these infections. We will continue to monitor trends in the rates of these measures and newly adopted measures as they become available for analysis.

The rates for certain quality measures varied by hospital characteristics. For example, using data collected during fiscal year 2017, we found that a larger share of for-profit facilities scored better than the national average on rates of CAUTI and CLABSI than did nonprofit LTCHs. However, data collected from 2014 through 2015 show a larger share of nonprofit LTCHs had better rates of unplanned readmissions than the average rate for for-profit LTCHs. We did not find this difference between nonprofit and for-profit facilities in the facility-adjusted rate of pressure ulcers or across any of the measures when we examined them by facility size.

Providers' access to capital: Implementation of LTCH dual payment-rate structure slows investment

Access to capital allows LTCHs to maintain, modernize, and expand their facilities. If LTCHs were unable to access capital, it might in part reflect problems with the adequacy of Medicare payments since Medicare accounts for about half of LTCH total revenues. However, in prior years, the level of capital investment likely reflected more about uncertainty regarding changes to regulations and legislation governing LTCHs than about Medicare payment rates. Although the Pathway for SGR Reform Act of 2013 provided more long-term regulatory certainty for the industry compared with prior years, concerns about the industry's ability to comply with the new patient criteria have resulted in low levels of capital investment.

LTCHs and LTCH companies have been positioning themselves for the changing payment environment. Strategies have included diversifying service lines and shifting portfolios over the last several years through closures and sales (Kindred Healthcare 2017, Kindred Healthcare 2015, Select Medical 2017, Select Medical 2015). Many of these sales and closures have occurred in markets with substantial competition from other LTCH providers. For example, during 2016, Kindred Healthcare acquired five LTCHs from Select Medical that were located in areas where Kindred already owned LTCHs, while Select acquired three hospitals from Kindred that

were located in areas where Select already owned LTCHs. This exchange reduced or eliminated competition between the two companies' LTCHs in some markets. Most of these eight LTCHs were subsequently closed. Kindred also completed an agreement to sell 12 LTCHs (a total of 783 licensed beds) to Curahealth in 2016 (Kindred Healthcare 2016a, Kindred Healthcare 2016b, Select Medical 2016). In 2018, Kindred Healthcare was acquired by Humana and two private equity firms (Kindred Healthcare 2018).

LTCHs' access to capital also depends on their total (all-payer) profitability. From 2012 through 2015, the LTCH all-payer margin remained stable at about 4 percent. However, in 2016, as the implementation of the dual payment-rate structure began, LTCHs' all-payer margin dropped to 3.1 percent. In 2017, the phase-in of the dual payment-rate structure continued, and while facilities, on average, increased the share and volume of patients meeting the criteria, 36 percent of cases, on average, did not meet the criteria and thus received a reduced payment rate. The share of Medicare revenue also decreased between 2015 and 2017, falling from almost 50 percent to about 45 percent of all LTCH revenue. Because of these combined factors, in 2017, the aggregate all-payer LTCH margin dropped to 0.2 percent.

The Commission expects continued industry consolidation, limited need for capital, and limited growth opportunities until after the LTCH dual payment-rate structure becomes fully implemented and LTCHs adjust their admission patterns and cost structures to align with the new payment incentives. Because Medicare pays less for certain cases, LTCHs with a higher share of cases meeting the criteria will have stronger financial performance. LTCHs with more than 85 percent of their Medicare cases meeting the criteria had an aggregate all-payer margin of 4.2 percent in 2017, down 1.2 percentage points from 2016.

Medicare's payments and providers' costs: Cost growth exceeded payment growth in 2017

From the start of Medicare's LTCH PPS until 2012, LTCHs, in aggregate, held cost growth below payment growth. After 2012, however, Medicare payments increased more slowly than provider costs, resulting in an aggregate 2016 Medicare margin of 3.9 percent. Because of reductions in payment associated with the implementation of the dual payment-rate structure, Medicare margins across LTCHs fell to -2.2 percent in 2017. However, LTCH profitability in 2017 relied on the

extent to which LTCHs admitted Medicare cases that met the criteria. LTCHs with more than 85 percent of cases meeting the criteria in 2017 had a Medicare margin of 4.6 percent, down from 6.2 percent in 2016.

Reductions in Medicare payment per case for LTCH services result from the implementation of the dual payment-rate structure in 2016

Per case payments for LTCH services grew rapidly following the implementation of the LTCH PPS, but growth in these payments slowed over time. From 2012 through 2015, payment per case grew at 1.3 percent annually. However, payment growth per case was flat from 2015 to 2016, a function of CMS beginning to phase in the dual payment-rate structure. In 2017, the dual payment-rate structure was 50 percent phased in for all LTCHs, resulting in further reductions in LTCH spending per case. From 2016 through 2017, LTCH payment per case fell by 7.3 percent.

Starting in 2016, trends in the payment per case began to diverge for LTCHs with more than 85 percent of cases meeting the criteria compared with LTCHs with a lower share of cases meeting the criteria. From 2012 through 2015, before the implementation of the dual payment-rate structure, payment per case grew 1.2 percent annually, slightly less than the aggregate. However, in 2016, payments per case increased by 4.9 percent and again by almost 4 percent in 2017, likely due to increases in case mix associated with the higher share of Medicare beneficiaries meeting the criteria in these facilities.

LTCHs reduced cost per case from 2016 to 2017 in response to changes in payment

From 2012 through 2015, LTCH cost per case increased by about 2 percent per year across all LTCHs. During this time, cost per case also increased by about 2 percent for the cohort of LTCHs with a high share of Medicare beneficiaries who met the criteria in 2017. However, after the phase-in of the dual payment-rate structure began, similar to changes in payment growth, the trend in cost growth also diverged. From 2015 to 2016, growth in cost per discharge slowed to 1.3 percent in aggregate, the slowest growth since 2011. In 2017, on average, LTCHs actually reduced costs per discharge by 1.1 percent. This reduction in costs likely resulted from changes in LTCH cost structures, including reductions in length of stay for beneficiaries not meeting the criteria under the dual payment-rate structure.

Cost growth remained robust for LTCHs with a high share of Medicare cases meeting the criteria. For LTCHs

**TABLE
11-8****The aggregate LTCH Medicare margin for all cases fell to -2.2 percent in 2017**

Type of LTCH	Share of discharges	2012	2013	2014	2015	2016	2017
All	100%	7.6%	6.8%	5.2%	4.7%	3.9%	-2.2%
Urban	96	7.7	6.9	5.2	4.7*	4.0	-1.9
Rural	4	3.4	6.0	5.1	3.5*	-0.2	-13.6
Nonprofit	12	-0.2	-1.1	-5.9	-5.9	-5.7	-13.0
For profit	87	9.3	8.6	6.5	6.5	5.5	-0.3
Government	1	N/A	N/A	N/A	N/A	N/A	N/A

Note: LTCH (long-term care hospital), N/A (not applicable). Government-owned facilities operate in a different financial context from other facilities, so their margins are not necessarily comparable. Their margins are not presented separately here, although they are included in the margins for other groups (e.g., "All"), where applicable. Components may not sum to 100 percent due to rounding.

*CMS adopted new core-based statistical area codes for LTCHs beginning fiscal year 2015; this change reclassified several facilities as urban that had previously been classified as rural, and therefore the margins across categories of urban and rural of facilities before 2015 should not be compared.

Source: MedPAC analysis of Medicare cost report data from CMS.

with more than 85 percent of Medicare cases that met the criteria, cost per case increased from 2015 to 2016 by 5.4 percent and from 2016 to 2017 by 5.6 percent, reflecting a 10-year high across this cohort of LTCHs. These increases in costs are expected, given the increase in case mix and patient acuity associated with treating the higher severity cases meeting the criteria (see text box on LTCH operational changes in response to the implementation of the dual payment-rate structure, pp. 302–303). For this group of LTCHs, the share of cases meeting the criteria grew by almost 30 percentage points in aggregate from 65 percent of cases meeting the criteria in 2015 to nearly 95 percent of cases in 2017.

Aggregate LTCH Medicare margins decreased in 2017

LTCH Medicare margins peaked in 2012 at 7.6 percent. In 2013, 2014, and 2015, CMS began implementing a downward payment adjustment intended to bring LTCH payments more in line with what would have been spent under the previous payment method (as mandated by the Medicare, Medicaid, and SCHIP Balanced Budget Refinement Act of 1999), decreasing the standard federal payment rate by about 3.75 percent in total. Because of these adjustments, the 2013 aggregate LTCH margin fell to 6.8 percent, down from 7.6 the previous year (Table 11-8). As anticipated, the margin fell again in 2014, to 5.2

percent. In 2015, the third and final year of the downward adjustment for budget neutrality, the aggregate LTCH margin fell to 4.7 percent.

In 2016, as the phase-in of the dual payment-rate structure began, the aggregate LTCH margin fell to 3.9 percent, primarily because of decreases in Medicare payment for discharges not meeting the criteria. Between 2016 and 2017, although there was a 9 percentage point shift toward cases that met the criteria (from 55 percent to 64 percent), LTCHs in aggregate received lower payments for 36 percent of cases (data not shown). Because the reduction in payments was greater than reductions in costs, the aggregate Medicare margin fell to -2.2 percent. Consistent with prior years, financial performance in 2017 varied across LTCHs. For-profit LTCHs (which accounted for more than three-quarters of all LTCHs and over 85 percent of LTCH discharges) had the highest aggregate margin at -0.3 percent (Table 11-8). The aggregate margin for nonprofit LTCHs (which accounted for less than 20 percent of all LTCHs and 12 percent of LTCH discharges) was -13.0 percent.

Since 2015, the Commission has calculated a margin for Medicare cases meeting the criteria using claims data combined with cost-to-charge ratios for each LTCH, as opposed to aggregate cost report data. Using this methodology, the Medicare margin for cases meeting the

**TABLE
11-9****From 2016 to 2017, Medicare margins for LTCHs with more than 85 percent of cases meeting the criteria fell**

Type of LTCH	Share of discharges	2012	2013	2014	2015	2016	2017
All	23%	10.5%	8.9%	6.5%	6.5%	6.2%	4.6%
Nonprofit	13	0.9	2.9	-1.8	-2.8	-2.8	-6.9
For profit	87	12.0	9.8	7.8	7.9	7.6	6.5

Note: LTCH (long-term care hospital). "Cases meeting the criteria" refers to Medicare discharges that meet the criteria specified in the Pathway for SGR Reform Act of 2013 to be paid the standard LTCH prospective payment system rate.

Source: MedPAC analysis of Medicare cost report data from CMS.

criteria declined between 2015 and 2016 from 6.8 percent to 6.3 percent. In 2017, the margin for cases meeting the criteria declined by half a percentage point to 5.8 percent. Because cases that meet the criteria are generally more profitable under the dual payment-rate structure than those that do not, we expect stronger financial performance under Medicare for LTCHs that treat higher shares of these cases. Indeed, LTCHs with more than 85 percent of Medicare cases meeting the criteria have historically had higher margins, in part due to the high case mix and relatively high profitability of Medicare cases admitted. In 2017, the aggregate Medicare margin for these LTCHs was 4.6 percent, a 1.6 percentage point reduction from 2016 (Table 11-9). This reduction in margin resulted from reduced payment for cases that did not meet the criteria (representing up to 15 percent of cases at these facilities), combined with relatively high cost growth.

Consistent with LTCHs' financial performance in aggregate, differences exist by facility ownership even across LTCHs with a high share of cases meeting the criteria. From 2016 to 2017, cost per case increased four times more rapidly at nonprofit facilities with a high share of cases that met the criteria than at their for-profit counterparts (13 percent compared with 4 percent) (data not shown), resulting in a 4.1 percentage point decrease in the Medicare margin (from -2.8 percent to -6.9 percent). Margins at for-profit LTCHs with a high share of Medicare cases meeting the criteria fell by 1.1 percent to 6.5 percent in 2017.¹⁵

High-margin LTCHs focused on cases meeting the criteria

In 2017, both higher per unit costs and lower per unit payments were the primary drivers of differences in financial performance between LTCHs with the lowest and highest Medicare margins (those in the bottom and top 25th percentiles of Medicare margins).¹⁶ More than half of the LTCHs with the highest Medicare margins in 2017 also had more than 85 percent of their Medicare cases meeting the criteria; therefore, many of the attributes of the highest margin facilities overlapped with those of LTCHs with a high share of cases meeting the criteria. High-margin LTCHs had a higher average case mix (1.24) compared with low-margin LTCHs (1.11) (Table 11-10, p. 300). This case mix, in part, reflects the share of Medicare cases meeting the criteria. In 2017, 71 percent of Medicare cases in high-margin LTCHs met the criteria compared with 55 percent in low-margin LTCHs. Occupancy rates tracked closely with financial performance: High-margin LTCHs had an average occupancy rate of 71 percent, 17 percentage points higher than low-margin LTCHs (54 percent).

After accounting for differences in case mix and local market input price levels, low-margin LTCHs had standardized costs per discharge that were 30 percent higher than high-margin LTCHs (\$35,999 vs. \$27,646, respectively). Payments per discharge were substantially lower for low-margin LTCHs. Outlier payments made up a larger share of total payments to low-margin LTCHs compared with high-margin LTCHs (7 percent compared

**TABLE
11-10****LTCHs in the top quartile of Medicare margins in 2017 had lower costs**

Characteristics	High-margin quartile	Low-margin quartile
Mean margin	13.7%	-29.1%
Mean total discharges per facility (all payers)	473	415
Medicare patient share	65%	58%
Occupancy rate	71%	54%
Mean CMI	1.24	1.11
Mean per discharge:		
Standardized costs	\$27,646	\$35,999
Standard Medicare payment*	38,102	30,295
High-cost outlier payments	2,886	5,258
Share of:		
Cases meeting the criteria	71%	55%
LTCHs that are for profit	96	60

Note: LTCH (long-term care hospital), CMI (case-mix index). Figures presented include only established LTCHs—those that filed valid cost reports in both 2016 and 2017. High-margin-quartile LTCHs were in the top 25 percent of the distribution of Medicare margins. Low-margin-quartile LTCHs were in the bottom 25 percent of the distribution of Medicare margins. Standardized costs have been adjusted for differences in case mix and area wages. Case-mix indexes have been adjusted for differences in short-stay outliers across facilities. “Cases meeting the criteria” refers to Medicare discharges that meet the criteria specified in the Pathway for SGR Reform Act of 2013 to be paid the standard LTCH prospective payment system rate. Government providers were excluded.

*Excludes outlier payments.

Source: MedPAC analysis of LTCH cost reports and Medicare Provider Analysis and Review data from CMS.

with 15 percent) (data not shown). When these outlier payments were removed from total payments, we found that the standard payment per discharge for low-margin LTCHs was 20 percent lower than that for high-margin LTCHs (\$30,295 vs. \$38,102, respectively).

Given the relatively low occupancy and low share of cases meeting the criteria and the relatively high costs, it will be difficult for many of these low-margin LTCHs to increase their occupancy rates and concurrently transition to a higher share of cases meeting the criteria as the dual payment-rate structure is implemented.

How should Medicare payments change in 2020?

To estimate LTCH payments, costs, and margins for 2019, we consider the cohort of LTCHs with a high share of cases meeting the criteria specified in the Pathway for SGR Reform Act of 2013, those LTCHs with 85 percent or more of Medicare cases meeting the criteria in 2017, consistent with the goals of the dual payment-rate policy. We base this projection on margins in 2017 and policy changes in 2018 and 2019. Those payment changes that affect our estimate of the 2019 margin include:

- a 1 percent payment rate increase for fiscal year 2018, as mandated by the Medicare Access and CHIP Reauthorization Act of 2015;
- a market basket increase of 2.9 percent for fiscal year 2019, offset by reductions required by the Patient Protection and Affordable Care Act of 2010 totaling 1.55 percentage points, for a net update of 1.35 percent;¹⁷ and
- budget-neutrality adjustments for the elimination of the 25-percent threshold rule.¹⁸

The net result is that from 2017 to 2019, payment rates will increase for cases that meet the criteria by about 2.5 percent over two years.

Given the implementation of the dual payment-rate structure, changes in cost will depend on the extent to which LTCHs focus on Medicare cases that meet the criteria. These cases tend to have a higher severity of illness than other cases; thus, as the share of these cases increases in LTCHs, LTCH costs are also expected to increase. From 2016 to 2017, costs per case in LTCHs with a high share of Medicare cases that met the criteria grew by 5.6 percent. This cost growth was in large part due to increases in the share of Medicare cases meeting the criteria. For this group of LTCHs, the share of cases meeting the criteria between 2015 and 2017 grew by nearly 30 percentage points in aggregate, from 65 percent to almost 95 percent. We expect significant changes in LTCHs’ costs as the dual payment-rate structure is fully implemented and LTCHs continue to increase their Medicare admissions of cases that meet the criteria. However, once an LTCH has reached a threshold of such cases, we expect changes in cost will stabilize and reflect levels consistent with those before the implementation of

the dual payment-rate structure. From 2013 through 2015, annual cost growth in LTCHs with a high share of cases meeting the criteria in 2017 was about 2 percent. This annual cost growth was also consistent across LTCHs in aggregate from 2013 through 2015, regardless of the share of Medicare cases that met the criteria in 2017. As such, we assume cost growth per discharge will equal about 2 percent per year based on historical trends.

Our projection of the LTCH Medicare margin for fiscal year 2019 focuses on LTCHs with more than 85 percent of Medicare cases meeting the criteria. About 30 percent of LTCHs meet the 85 percent threshold, which aligns with the goals of the dual payment-rate policy—encouraging LTCHs to admit the most medically complex cases requiring specialized services. We calculated a 2017 margin of 4.6 percent for these LTCHs. Using a three-year historical average of cost growth (2 percent), we project that for facilities with more than 85 percent of Medicare cases that meet the criteria, the aggregate margin will decrease to 1.2 percent in 2019.

The extent to which LTCHs transition their admissions to cases that meet the criteria will influence their financial performance under Medicare. We expect growth in payment to accompany growth in costs associated with the increased severity of illness of cases meeting the criteria. However, the extent to which this occurs relies on the degree of behavioral response from the industry. We project that LTCHs that admit a lower share of cases meeting the criteria will have a negative Medicare margin in 2019, while those that admit a higher share of cases meeting the criteria will have a margin higher than our projection.

The 2020 payment update for cases meeting the criteria is expected to equal the projected LTCH market basket of 3.3 percent, less an adjustment for productivity of 0.5 percent. Currently, the net expected update is 2.8 percent, but that amount may change by the time CMS calculates the final 2020 update. By 2020, the phase in of the dual payment-rate structure will be complete and cases not meeting the criteria will no longer receive a blended payment rate. In addition, LTCHs will be required to meet a 50 percent threshold of Medicare cases that meet the criteria to continue to be paid the standard LTCH PPS rate.

On the basis of these indicators, the Commission concludes that a positive payment update is necessary to support LTCHs focused on a high share of cases meeting the criteria and to ensure that Medicare beneficiaries maintain access to safe and effective LTCH care.

RECOMMENDATION 11

For 2020, the Secretary should increase the fiscal year 2019 Medicare base payment rates for long-term care hospitals by 2 percent.

RATIONALE 11

Most of our payment adequacy measures are positive or reflect expected changes under the new dual payment-rate structure, and the aggregate Medicare margin for LTCHs with a high share of cases that meet the criteria for 2017 was positive, indicating that LTCHs are able to operate under current payment rates. However, we estimate that the Medicare margin will decrease to 1.2 percent for these facilities in 2019. While we continue to expect LTCHs to quickly respond to the new payment incentives, based on historical trends, we also expect to see increases in cost growth in 2018 and 2019 as the new payment structure continues to be implemented. Because of these factors, an update of 2 percent is appropriate given the changes in the industry toward higher acuity patients and the Commission's desire to support LTCHs with a high share of cases that meet the criteria, while maintaining financial pressure on an industry that historically has been highly responsive to changes in payment policy.

IMPLICATIONS 11

Spending

- This recommendation would decrease federal program spending relative to the expected payment update by less than \$50 million in 2020 and by less than \$1 billion over five years.

Beneficiary and provider

- This recommendation is not expected to have adverse effects on Medicare beneficiaries' access to care. This recommendation is not expected to affect providers' willingness or ability to furnish care for cases that meet the criteria. ■

LTCH operational changes in response to the implementation of the dual payment-rate structure

The Pathway for SGR Reform Act of 2013 established “site-neutral” payments for certain cases in long-term care hospitals (LTCHs) beginning in fiscal year 2016. These cases are referred to as “cases not meeting the criteria.” Since 2016, only cases that meet the criteria specified in the Act are paid the standard LTCH prospective payment system (PPS) rate. It will be some time before we see LTCHs’ full response to the legislation because this policy is being phased in over four years (2016 through 2019).

Commission staff conducted a series of site visits and interviews to understand the effects of the implementation of the dual payment-rate structure on LTCHs’ admissions, staffing, and operations and the impact on acute care hospitals’ (ACHs’) patterns of referral to other post-acute care (PAC) providers. Additionally, we sought to understand the various strategies LTCHs are pursuing in response to the dual payment-rate structure (e.g., whether facilities changed their admission practices to accept only cases that met the new criteria for the standard LTCH PPS rate).

We conducted interviews with staff from nine LTCHs, three skilled nursing facilities, and seven ACHs, either in person or by telephone. These included in-person interviews in facilities in California, Connecticut, the District of Columbia, Florida, New York, and Texas. We also spoke by telephone with facility representatives from Iowa and several areas in California and New York. These areas exhibited a wide range of provider and market characteristics. Each market represented varying degrees of Medicare managed care penetration, accountable care organization penetration, physician employment structure, state regulations, ACH occupancy rates and bed availability, and LTCH and other PAC bed

availability. The facilities whose representatives we spoke with varied in size, ownership, Medicare payer share, and degree of integration with other health care providers (e.g., providers fully integrated into a large health care system and those that were part of a chain).

LTCHs have changed several operations-related strategies—including admission patterns, facility capabilities, and staffing. LTCH staff cited changes to their admissions practices, focusing on the extent to which cases that do not meet the criteria continue to be admitted to the facility. Some LTCHs no longer admit cases that do not meet the criteria, while other LTCHs continue to admit such cases.

LTCH staff explained that both financial and practical reasons drove these changes in admission patterns to admit only beneficiaries who meet the criteria. Some staff explained that, even with the blended rate under the partial phase-in of the policy, payments are not adequate to cover their costs. They reported strategies to maintain a profitable average daily census of cases that meet criteria, including expanding referral regions and educating physicians and case managers from referring ACHs about the facility’s capabilities and the types of patients they accept. LTCH administrators reported working to build additional relationships with case managers in the referring ACHs. To expand the mix of patients and payers, some LTCH staff reported increased attempts to contract with private payers, including Medicare Advantage plans.

In contrast, some LTCHs we interviewed continue to admit cases that do not meet criteria while attempting to increase the share of admissions that meet the criteria. For the cases that do not meet the criteria, facilities reported targeting admissions that have lower

(continued next page)

LTCH operational changes in response to the implementation of the dual payment-rate structure (cont.)

expected costs of treatment relative to the reduced payment rate. However, staff expressed concern about the viability of this approach as the policy becomes fully phased in during fiscal year 2020. Facilities reported various reasons for continuing to accept these cases: treating patients who would benefit from their services, maintaining relationships with referring ACHs, and the belief that shorter stay cases that do not meet criteria could be financially profitable and help cover certain facility costs. Several facilities discussed their admission of patients with an expected short length of stay (seven days or less) and the expectation that the cost of treating these beneficiaries would be covered by the blended payment rate.

While facilities differed on admitting cases that do not meet the criteria, LTCH staff interviewed consistently reported operational and staffing changes that occurred because of the increased patient acuity that results from admitting primarily cases that do meet the criteria. Across most staff we spoke with, they discussed implementing operational and administrative changes to handle these higher acuity patients, including adding services or increasing staff capabilities. For example, LTCHs described adding intensive care unit (ICU) beds, bariatric beds, and telemetry services to accommodate the higher acuity patients discharged from an ACH. LTCHs have also attempted to increase staff skill levels through additional training, including critical care training for registered nurses to ensure that ICU-level care can be provided, training to facilitate more vigilant monitoring, and protocols for earlier patient ambulation. In addition to training, facility staff also reported hiring more nurses to increase nurse-to-patient ratios.

As of September 30, 2016, one LTCH chain reported that nearly 100 percent of Medicare discharges in its

facilities met the criteria to receive the standard LTCH PPS rate. Initially, the average daily census across these LTCHs had dropped by about 2.5 patients per hospital per day; however, as of September 30, 2017, patient days increased by 2.7 percent and occupancy increased by 4 percentage points compared with the same quarter of the prior year (2016) (Select Medical 2017). In addition, the admitted Medicare cases had higher case mix and thus resulted in higher revenue per day than before the implementation of the dual payment-rate structure (Select Medical 2016). Net revenue per patient day increased 0.5 percent from 2017 to 2018, while the number of patient days and admissions increased 1.5 percent and 2.7 percent, respectively (Select Medical 2018a). Compared with the third quarter of 2017, occupancy remained stable at 65 percent in 2018 (Select Medical 2018b).

Another large for-profit chain began receiving Medicare payment for discharges under the dual payment-rate structure on September 1, 2016. In its third quarter 2017 earnings release, this chain reported an 11 percent decrease in Medicare admissions compared with the third quarter of 2016, holding the number of facilities constant (Kindred Healthcare 2017).¹⁹ Medicare revenue per admission initially decreased by about 5 percent when the dual payment-rate structure began. The revenue per admission began to increase, gaining just over 1 percent since fall of 2016. In 2017, occupancy rates remained below pre-policy levels (Kindred Healthcare 2016b). In July 2018, Kindred Healthcare was acquired by Humana and two private equity firms. In this acquisition, Kindred's long-term care hospital, inpatient rehabilitation hospital, and contract rehabilitation services were separated from the rest of Kindred business lines that include hospice and home health (Kindred Healthcare 2018). ■

Endnotes

- 1 The Medicare, Medicaid, and SCHIP Extension Act of 2007 also requires LTCHs to have a patient review process that screens patients to ensure appropriateness of admission and continued stay, physician on-site availability on a daily basis, and interdisciplinary treatment teams of health care professionals. The Pathway for SGR Reform Act of 2013 specifies that, beginning in fiscal year 2020, LTCHs will also be required to maintain a certain share of beneficiaries who qualify to receive the standard LTCH prospective payment system rate.
- 2 More information on the prospective payment system for LTCHs is available at http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_ltch_final_v2_sec.pdf?sfvrsn=0.
- 3 High-cost outlier cases are identified by comparing their costs with a threshold that is the MS–LTC–DRG payment for the case plus a fixed loss amount (\$21,943 in 2017). Medicare pays 80 percent of the LTCH’s costs above the threshold. In fiscal year 2017, high-cost outlier payments were made for about 19 percent of LTCH cases. The prevalence of high-cost outlier cases varied by LTCH ownership. About 17 percent of cases in for-profit LTCHs were high-cost outliers compared with 23 percent of cases in nonprofit LTCHs. Historically, some case types have been far more likely to be high-cost outliers than others. For example, almost a quarter of cases assigned to MS–LTC–DRG 4 (tracheostomy with prolonged mechanical ventilation) qualify to receive high-cost outlier payments each year.
- 4 Not all LTCHs’ cost reporting start dates are the same; implementation of the dual payment-rate structure began for LTCHs over the course of fiscal year 2016.
- 5 The 85 percent threshold originated from conversations with industry representatives and stakeholders as a reasonable goal for financial stability under Medicare.
- 6 Previously, the amount Medicare paid to LTCHs for an SSO case equaled the lowest of the following payment formulas: 100 percent of the cost of the case, 120 percent of the per diem amount for the MS–LTC–DRG multiplied by the patient’s length of stay, the full MS–LTC–DRG payment, or a blend of the IPPS amount for the same type of case and 120 percent of the MS–LTC–DRG per diem amount. The LTCH per diem payment amount makes up more of the total amount as the patient’s length of stay increases.
- 7 MMSEA and subsequent legislation allowed exceptions to the moratorium for (1) LTCHs that began their qualifying period (demonstrating an average Medicare length of stay greater than 25 days) on or before December 29, 2007; (2) entities that had a binding or written agreement with an unrelated party for the construction, renovation, lease, or demolition of an LTCH, with at least 10 percent of the estimated cost of the project already expended on or before December 29, 2007; (3) entities that had obtained a state certificate of need on or before December 29, 2007; (4) existing LTCHs that had obtained a certificate of need for an increase in beds issued on or after April 1, 2005, and before December 29, 2007; and (5) LTCHs located in a state with only one other LTCH and that sought to increase beds after the closure or decrease in the number of beds of the state’s other LTCH.
- 8 The Pathway for SGR Reform Act of 2013, as amended by the Protecting Access to Medicare Act of 2014, allowed exceptions to the moratorium for (1) LTCHs that began their qualifying period (demonstrating an average Medicare length of stay greater than 25 days) on or before April 1, 2014; (2) entities that had a binding or written agreement with an unrelated party for the construction, renovation, lease, or demolition of an LTCH, with at least 10 percent of the estimated cost of the project already expended on or before April 1, 2014; and (3) entities that had obtained a state certificate of need on or before April 1, 2014.
- 9 The anomalous cost reporting trends during this period make it difficult to accurately compare changes in the number of LTCH facilities and LTCH beds using cost report data in 2013, 2014, and 2015. The Commission requires cost reports to span from 10 to 13 months for inclusion in the margin analysis. Thirty-five LTCHs included in the 2014 analysis were excluded from the 2015 analysis because of changes in cost reporting periods, closures, or status as an all-inclusive-rate provider. Twenty-seven LTCHs that were not included in the 2014 analysis because of changes in cost reporting periods were included in the 2015 analysis. Combined, these facility changes resulted in eight fewer facilities in the 2015 analysis compared with 2014.
- 10 The Medicare Provider of Services (POS) file is an alternate data source for determining LTCH supply. The POS file includes a larger number of facilities than is found in the cost report file. The cost report file provides a more conservative estimate of total capacity because some LTCHs may not yet have filed a cost report for the applicable year when we completed our analysis, while others may have been exempt from filing cost reports because of low Medicare volume or because they are paid under an all-inclusive rate. However, POS data may overstate the total number of LTCHs because facilities that close may not be immediately removed from the file.

- 11 The following MS–LTC–DRGs are considered related to respiratory illness or using prolonged mechanical ventilation: MS–LTC–DRG 4, tracheostomy with ventilator support 96+ hours or primary diagnosis except face, mouth and neck without major operating room (OR) procedure; MS–LTC–DRG 166, other respiratory system OR procedures with major complication or comorbidity (MCC); MS–LTC–DRG 177, respiratory infections and inflammations with MCC; MS–LTC–DRG 189, pulmonary edema and respiratory failure; MS–LTC–DRG 190, chronic obstructive pulmonary disease with MCC; MS–LTC–DRG 207, respiratory system diagnosis with ventilator support 96+ hours; MS–LTC–DRG 208, respiratory system diagnosis with ventilator support ≤96 hours; MS–LTC–DRG 870, septicemia with prolonged ventilator support with MCC.
- 12 Among the top 20 diagnoses in all LTCHs and LTCHs with a high share of cases that met the criteria in 2017, 18 MS–LTC–DRGs overlap. The MS–LTC–DRGs in the top 20 across all LTCHs included MS–LTC–DRG 570 (skin debridement with MCC) and MS–LTC–DRG 853 (infectious and parasitic diseases with operating room procedure with MCC), instead of MS–LTC–DRG 56 (degenerative nervous system disorders with MCC) and MS–LTC–DRG 371 (major gastrointestinal disorders and peritoneal infections with MCC, included with LTCHs with a high share of cases).
- 13 If we approximate marginal cost as total Medicare costs minus fixed building and equipment costs, then marginal profit can be calculated as follows: (payments for Medicare services – (total Medicare costs – fixed building and equipment costs)) / Medicare payments. This comparison is a lower bound on the marginal profit because we do not consider any potential labor costs that are fixed.
- 14 This rate of about 25 percent is higher than the Commission’s unadjusted measure of direct LTCH to ACH readmissions for a combination of reasons. First, the Commission’s measure includes only direct LTCH to ACH admissions and does not include a 30-day window. Second, the CMS measure requires a one-day period after LTCH discharge before ACH admission to be counted for the measure, eliminating any direct LTCH to ACH admissions.
- 15 Only one rural facility had more than 85 percent of its Medicare cases meeting the criteria in 2017; therefore, we did not consider a breakdown of margins by urban–rural location to be meaningful.
- 16 Many new LTCHs operate at a loss for a period after opening. For this analysis of high-margin and low-margin LTCHs, we examined only LTCHs that submitted valid cost reports in both 2016 and 2017. We excluded government-owned LTCHs because they operate in a different financial context than other LTCHs, making their financial performance not comparable.
- 17 The 2019 payment update equaled the LTCH PPS market basket increase, projected to be 2.9 percent, less the required multifactor productivity adjustment of 0.8 percentage point and less the required 0.75 percentage point reduction.
- 18 CMS established the “25-percent threshold rule” to set a limit on the share of cases that can be admitted to an LTCH from certain referring ACHs and reduce payment for some LTCHs with cases that exceed the threshold. Although the policy was intended to create disincentives for LTCHs to admit a large share of their patients from a single ACH, it was never fully implemented. In its final 2019 payment rule, CMS eliminated the 25-percent threshold rule.
- 19 This chain consolidated its presence in several geographic markets, reducing the number of LTCHs between 2016 and 2017. Medicare admissions decreased by over 22 percent across all LTCHs owned by this chain in 2016 (Kindred Healthcare 2017).

References

- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2013. Medicare program; hospital inpatient prospective payment systems for acute care hospitals and the long term care hospital prospective payment system and proposed fiscal year 2014 rates; quality reporting requirements for specific providers; hospital conditions of participation; Medicare program; FY 2014 hospice wage index and payment rate update; hospice quality reporting requirements; and updates on payment reform; proposed rules Proposed rules. *Federal Register* 78, no. 91 (May 10): 27486–27823.
- Dalton, K., D. Kennell, S. Bernard, et al. 2012. *Determining medical necessity and appropriateness of care for Medicare long-term care hospitals (LTCHs): Report on site visits to IPPS critical care services and LTCHs*. Prepared under contract by Kennell and Associates Inc. and Research Triangle International for the Centers for Medicare & Medicaid Services. Baltimore, MD: CMS.
- Gage, B., L. Smith, M. Morley, et al. 2011. *Post-Acute Care Payment Reform Demonstration: Report*. Prepared under contract to the Centers for Medicare & Medicaid Services. Baltimore, MD: CMS. http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Reports/Research-Reports-Items/PAC_Payment_Reform_Demo_Final.html.
- Kahn, J. M., N. M. Benson, D. Appleby, et al. 2010. Long-term acute care hospital utilization after critical illness. *Journal of the American Medical Association* 303, no. 22 (June 9): 2253–2259.
- Kindred Healthcare. 2018. Humana, together with TPG Capital and Welsh, Carson, Anderson & Stowe, announce completion of the acquisition of Kindred Healthcare, Inc. News release. July 2. <https://www.kindredhealthcare.com/news/2018/07/02/humana-together-tpg-capital-and-welsh-carson-anderson-stowe>.
- Kindred Healthcare. 2017. Kindred Healthcare reports third quarter 2017 results. News release. November 6. <http://investors.kindredhealthcare.com/news-releases/news-release-details/kindred-healthcare-reports-third-quarter-2017-results>.
- Kindred Healthcare. 2016a. Kindred completes sale of 12 LTAC hospitals to Curahealth, advancing LTAC portfolio optimization strategy. News release. October 3. http://investors.kindredhealthcare.com/phoenix.zhtml?c=129959&p=irol-newsArticle_Print&ID=2208657.
- Kindred Healthcare. 2016b. Kindred Healthcare updates strategy and reports third quarter 2016 results. News release. November 7. http://investors.kindredhealthcare.com/phoenix.zhtml?c=129959&p=irol-newsArticle_Print&ID=2220343.
- Kindred Healthcare. 2015. Kindred Healthcare reports third quarter 2015 results. News release. November 4. <http://investors.kindredhealthcare.com/news-releases/news-release-details/kindred-healthcare-reports-third-quarter-2015-results>.
- Koenig, L., B. Demiralp, J. Saavoss, et al. 2015. The role of long-term acute care hospitals in treating the critically ill and medically complex: An analysis of nonventilator patients. *Medical Care* 53, no. 7 (July): 582–590.
- Makam, A. N., O. K. Nguyen, L. Xuan, et al. 2018. Factors associated with variation in long-term acute care hospital vs skilled nursing facility use among hospitalized older adults. *JAMA Internal Medicine* 178, no. 3 (March 1): 399–405.
- Mayr, F. B., S. Yende, W. T. Linde-Zwirble, et al. 2010. Infection rate and acute organ dysfunction risk as explanations for racial differences in severe sepsis. *Journal of the American Medical Association* 303, no. 24 (June 23): 2495–2503.
- Medicare Payment Advisory Commission. 2017a. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2017b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- National Association of Long Term Care Hospitals. 2017. *State of the long term care hospital sector: Access to care for Medicare beneficiaries*. Prepared by KNG Health Consulting for the National Association of Long Term Care Hospitals. West Hartford, CT: NALTH.
- Nierman, D. M., and J. E. Nelson. 2002. Chronic critical illness. *Critical Care Clinics* 18, no. 4: xi–xii.
- Select Medical. 2018a. Select Medical Holdings Corporation announces results for its third quarter ended September 30, 2018. <https://www.selectmedical.com/-/media/project/selectmedical/dotcom/usa/page-assets/ir/earnings-news-releases/11-select-medical-holdings-corporation-announces-its-2018-third-quarter-results-november-1-2018.pdf?t=20181112203944>.
- Select Medical. 2018b. Select Medical Holdings Corporation earning release call, November 6. <https://seekingalpha.com/article/4217728-select-medical-holdings-corporation-sem-q3-2018-results-earnings-call-transcript?page=2>.

Select Medical. 2017. Select Medical Holdings Corporation announces results for its third quarter ended September 30, 2017. https://www.selectmedical.com/uploadedFiles/Content/Investor_Relations/Earnings_Releases/2017-Q3-Earnings-Release.pdf.

Select Medical. 2016. Select Medical Holdings Corporation announces results for third quarter ended September 30. http://www.selectmedical.com/uploadedFiles/Content/Investor_Relations/Earnings_Releases/2016-Q3-Earnings-Release.pdf.

Select Medical. 2015. Q3 2015 Select Medical Holdings Corporation earnings conference call, October 30.

CHAPTER 12

Hospice services

R E C O M M E N D A T I O N

- 12** For 2020, the Congress should reduce the fiscal year 2019 Medicare base payment rates for hospice providers by 2 percent.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Hospice services

Chapter summary

The Medicare hospice benefit covers palliative and support services for beneficiaries who are terminally ill with a life expectancy of six months or less if the illness runs its normal course. When beneficiaries elect to enroll in the Medicare hospice benefit, they agree to forgo Medicare coverage for conventional nonpalliative treatment of their terminal illness and related conditions. In 2017, nearly 1.5 million Medicare beneficiaries (including more than half of decedents) received hospice services from 4,488 providers, and Medicare hospice expenditures totaled about \$17.9 billion.

Assessment of payment adequacy

The indicators of payment adequacy for hospices—beneficiary access to care, quality of care, provider access to capital, and Medicare payments relative to providers' costs—are positive.

Beneficiaries' access to care—Hospice use among Medicare beneficiaries continues to increase, suggesting greater awareness of and access to hospice services. In 2017, hospice use increased across almost all demographic and beneficiary groups examined. However, rates of hospice use remained lower for non-White beneficiaries than for White beneficiaries.

- **Capacity and supply of providers**—In 2017, the number of hospice providers increased by about 2.4 percent due to growth in the number of

In this chapter

- Are Medicare payments adequate in 2019?
.....
- How should Medicare payments change in 2020?
.....

for-profit hospices, continuing a more than decade-long trend of substantial market entry by for-profit providers.

- ***Volume of services***—In 2017, the proportion of beneficiaries using hospice services at the end of life continued to grow, and length of stay among decedents increased. Of the total Medicare beneficiary decedents in 2017, 50.4 percent used hospice, up from 49.7 percent in 2016. Between 2016 and 2017, average length of stay among decedents increased from 87.8 days to 88.6 days and median length of stay was steady at 18 days.
- ***Marginal profit***—For hospice providers, Medicare payments exceeded marginal costs by roughly 14 percent in 2016, suggesting that providers have an incentive to treat Medicare patients. This rate of marginal profit is a positive indicator of patient access.

Quality of care—Limited quality data are available for hospice providers. In 2017, hospices' performance on seven quality measures and a composite measure related to processes of care at hospice admission was high, but most of the measures appear to be topped out. Hospice Consumer Assessment of Healthcare Providers and Systems® (CAHPS®) survey data for individual providers became available for the first time in 2018. Scores on the eight CAHPS measures were generally high; however, there is more variation and potential for improvement with the CAHPS measures than with the process measures.

Providers' access to capital—Hospices are not as capital intensive as some other provider types because they do not require extensive physical infrastructure. Continued growth in the number of for-profit providers (5 percent increase in 2017) suggests capital is available to these providers. Less is known about access to capital for nonprofit freestanding providers, for which capital may be more limited. Hospital-based and home health-based hospices have access to capital through their parent providers.

Medicare payments and providers' costs—The aggregate 2016 Medicare margin, which is an indicator of the adequacy of Medicare payments relative to providers' costs, was 10.9 percent, up from 9.9 percent in 2015. The projected Medicare margin is 10.1 percent in 2019.

Given the margin in the industry and our other positive payment adequacy indicators, we recommend that the Congress reduce the Medicare hospice base payment rates by 2 percent for 2020. This recommendation would bring payment rates closer to costs, would lead to savings for beneficiaries and taxpayers, and would be consistent with the Commission's principle that it is incumbent on Medicare to maintain financial pressure on providers to constrain costs. ■

Background

Medicare began offering the hospice benefit in 1983, pursuant to the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). The benefit covers palliative and support services for beneficiaries who are terminally ill, with a medical prognosis that the individual's life expectancy is six months or less if the illness runs its normal course. A broad set of services is included, such as nursing care; physician services; counseling and social worker services; hospice aide (also referred to as home health aide) and homemaker services; short-term hospice inpatient care (including respite care); drugs and biologics for symptom control; supplies; home medical equipment; physical, occupational, and speech therapy; bereavement services for the patient's family; and other services for palliation of the terminal illness and related conditions. Most commonly, hospice care is provided in patients' homes, but hospice services are also provided in nursing facilities, assisted living facilities, hospice facilities, and hospitals. In 2017, nearly 1.5 million Medicare beneficiaries received hospice services, and Medicare expenditures totaled about \$17.9 billion.

Beneficiaries receive the Medicare hospice benefit only if they elect to do so; if they do, they agree to forgo Medicare coverage for conventional nonpalliative treatment of the terminal illness and related conditions.¹ Medicare continues to cover items and services unrelated to the terminal illness and related conditions. For each person admitted to a hospice program, a written plan of care must be established and maintained by an interdisciplinary group (which must include a hospice physician, registered nurse, social worker, and pastoral or other counselor) in consultation with the patient's attending physician, if there is one. The plan of care must identify the services to be provided (including management of discomfort and symptom relief) and describe the scope and frequency of services needed to meet the patient's and family's needs.

Beneficiaries elect hospice for defined benefit periods. The first hospice benefit period is 90 days. For a beneficiary to elect hospice initially, two physicians—a hospice physician and the beneficiary's attending physician—are generally required to certify that the beneficiary has a life expectancy of six months or less if the illness runs its normal course.² If the patient's terminal illness continues to engender the likelihood of death within 6 months, the hospice physician can recertify the patient for another 90 days and for an unlimited number of 60-day periods after

that, as long as he or she remains eligible.³ Beneficiaries can disenroll from hospice at any time (referred to as "revoking hospice") and can reelect hospice for a subsequent period as long as the beneficiary meets the eligibility criteria.

Hospice use among Medicare beneficiaries has grown substantially since 2000, perhaps due to greater awareness of hospice use as well as the entry of new types of hospice providers and increased lengths of stay, particularly among beneficiaries with neurological conditions and certain other noncancer diagnoses. Since 2000, hospice spending has grown substantially, increasing at a rapid rate between 2000 and 2012, remaining flat between 2012 and 2014, and growing again between 2014 and 2017. Between 2000 and 2012, Medicare spending for hospice care increased more than 400 percent, from \$2.9 billion to \$15.1 billion. That spending increase was driven by greater numbers of beneficiaries electing hospice and by growth in length of stay for patients with the longest stays. Occurring simultaneously since 2000 has been a substantial increase in the number of for-profit providers.⁴ Between 2012 and 2014, Medicare spending for hospice services was flat at about \$15.1 billion each year. Between 2014 and 2017, Medicare hospice spending increased roughly 6 percent per year on average. This spending growth between 2014 and 2017 reflects an increase in the number of beneficiaries using hospice care and in the Medicare base payment rate, as well as a modest increase in average length of stay since 2015. Medicare is the largest payer of hospice services, covering more than 90 percent of hospice patient days in 2017.

Medicare payment for hospice services

The Medicare program pays a daily rate to hospice providers. The hospice provider assumes all financial risk for costs and services associated with care for the patient's terminal illness and related conditions. The hospice provider receives payment for every day a patient is enrolled, regardless of whether the hospice staff visited the patient or otherwise provided a service that day. This payment design is intended to encompass not only the cost of visits but also other costs a hospice incurs for palliation and management of the terminal condition and related conditions, such as on-call services, care planning, drugs, medical equipment, supplies, patient transportation between sites of care that are specified in the plan of care, and short-term hospice inpatient care.

Payments are made according to a fee schedule that has four levels of care: routine home care (RHC), continuous

**TABLE
12-1****Medicare hospice payment categories and rates**

Category	Description	Base payment rate, FY 2019	Share of hospice days, 2017
Routine home care*	Home care provided on a typical day: Days 1–60	\$196 per day	31.6%
	Home care provided on a typical day: Days 61+	\$154 per day	66.4
Continuous home care	Home care provided during periods of patient crisis	\$42 per hour	0.2
Inpatient respite care	Inpatient care for a short period to provide respite for primary caregiver	\$176 per day	0.3
General inpatient care	Inpatient care to treat symptoms that cannot be managed in another setting	\$758 per day	1.4

Note: FY (fiscal year). Payment rates are rounded in the table to the nearest dollar. The routine home care payment rate has two levels: one for the first 60 days of hospice care and one for days 61 and beyond. If there is a break in hospice care that is more than 60 days, the day count resets to 1 when the patient re-enters hospice. Payment for continuous home care (CHC) is an hourly rate (\$41.56 per hour, with a maximum payment per day equal to about \$997) for care delivered during periods of crisis if care is provided in the home for 8 or more hours within a 24-hour period beginning at midnight. In addition, a nurse must deliver more than half of the hours of this care to qualify for CHC-level payment. The above rates are 2 percentage points lower for hospices that do not submit the required quality data. The percentages may not sum to 100 percent due to rounding.

*In addition to the daily rate, Medicare pays \$42 per hour for registered nurse and social worker visits (up to four hours per day) that occur during the last seven days of life for beneficiaries receiving routine home care (which is referred to as the service intensity adjustment).

Source: Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018. *Update to hospice payment rates, hospice cap, hospice wage index, and the hospice pricer for FY 2019*. Manual System Pub 100–04 Medicare Claims Processing, Transmittal 4086, July 13.

home care (CHC), inpatient respite care (IRC), and general inpatient care (GIP) (Table 12-1). The four levels are distinguished by the location and intensity of the services provided. RHC is the most common level of hospice care, accounting for about 98 percent of all hospice days in 2017. Other levels of care—GIP, CHC, and IRC—are available to manage needs in certain situations. GIP is provided in a facility on a short-term basis to manage symptoms that cannot be managed in another setting. CHC is intended to manage a short-term symptom crisis in the home and involves eight or more hours of care per day, mostly nursing. IRC is care in a facility for up to five days to provide a break to an informal caregiver. Unless a hospice provides GIP, CHC, or IRC on any given day, it is paid at the RHC rate. The level of care can vary throughout a patient's hospice stay as the patient's needs change.

In January 2016, CMS implemented reforms to the hospice payment system that represented the first changes to the payment structure since the benefit's inception in 1983. Formerly, RHC was paid at a single, uniform daily rate. Now, Medicare pays two per diem rates for RHC—a higher rate for the first 60 days of a hospice episode and a lower rate for days 61 and beyond (\$196 and \$154 per day, respectively, in 2019) (Table 12-1).⁵ Referred to as the service intensity adjustment, Medicare pays an additional \$42 per hour for registered nurse and social worker visits

that occur during the last seven days of life (up to four hours are payable per day) for patients receiving RHC in 2019.

The new RHC payment structure is intended to better align payments with the costs of providing hospice care throughout an episode. Hospices tend to provide more services at the beginning and end of an episode and less in the middle. As a result, under a flat per diem, long stays are more profitable than short stays. The Commission expressed concern that this misalignment of the payment system led to a number of issues (e.g., making the payment system vulnerable to patient selection; spurring some providers to pursue revenue-generation strategies, such as enrolling patients likely to have long stays, including some who may not meet the eligibility criteria; and generating wide variation in profit margins across providers based on the length of stay) (Medicare Payment Advisory Commission 2015b, Medicare Payment Advisory Commission 2009). In March 2009, the Commission recommended that Medicare move away from the flat per diem to one that is higher at the beginning and end of an episode and lower in the intervening period. The new payment structure that CMS implemented in 2016 is modest in scope but moves in this direction. Daily payment rates for hospice are adjusted to account for geographic differences in wage rates.⁶

Hospice payment rates are updated annually by the inpatient hospital market basket index. Beginning fiscal year 2013, the market basket index has been reduced by a productivity adjustment, as required by the Patient Protection and Affordable Care Act of 2010 (PPACA). An additional 0.3 percentage point reduction to the market basket update was required in fiscal years 2013 to 2017 and 2019. The Medicare Access and CHIP Reauthorization Act of 2015 modified the hospice update amount for fiscal year 2018, setting it at 1 percent for that fiscal year. Beginning in fiscal year 2014, hospices that do not report quality data receive a 2 percentage point reduction in their annual payment update. The annual payment update impacted by the 2 percent reduction is two years after the data reporting year (e.g., a lack of reporting in fiscal year 2014 would affect the provider's update for fiscal year 2016).

Beneficiary cost sharing for hospice services is minimal. Prescription drugs and inpatient respite care are the only services potentially subject to cost sharing. Hospices may charge coinsurance of 5 percent for each prescription provided outside the inpatient setting (not to exceed \$5) and for inpatient respite care (not to exceed the inpatient hospital deductible). (For a more complete description of the hospice payment system, see http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_hospice_final_sec.pdf?sfvrsn=0.)

Medicare hospice payment limits (“caps”)

The Medicare hospice benefit was designed to give beneficiaries a choice in their end-of-life care, allowing them to forgo conventional treatment (often in inpatient settings) and die at home, with family, according to their personal preferences.

The inclusion of the Medicare hospice benefit in TEFRA was based in large part on the premise that the new benefit would be a less costly alternative to conventional end-of-life care (Government Accountability Office 2004, Hoyer 2007). Studies show that beneficiaries who elect hospice incur less Medicare spending in the last one or two months of life than comparable beneficiaries who do not, but also that Medicare spending for beneficiaries is higher for hospice enrollees than for nonenrollees in the earlier months before death. In essence, hospice's net reduction in Medicare spending decreases the longer the patient is enrolled, and beneficiaries with long hospice stays tend to incur higher Medicare spending than those who do not elect hospice (Medicare Payment Advisory Commission 2008). Studies have been mixed on whether hospice has

saved the Medicare program money in the aggregate compared with conventional care. Recent research by a Commission contractor examined the literature and conducted a new market-level analysis of hospices' effect on Medicare expenditures. That study found that while hospice produces savings for some beneficiaries, such as those with cancer, overall, hospice has not reduced net Medicare program spending and may have even increased net spending because of very long stays among some hospice enrollees (Direct Research 2015).

When the Congress established the hospice benefit, it included two limitations, or “caps,” on payments to hospices in an effort to make cost savings more likely. The first cap limits the share of inpatient care days that a hospice may provide to 20 percent of its total Medicare patient care days. This cap is rarely exceeded; any inpatient days provided in excess of the cap are paid at the routine home care payment rate.

The second, more visible cap limits the aggregate Medicare payments that an individual hospice can receive. This cap was implemented at the outset of the hospice benefit with the goal of ensuring that Medicare payments did not exceed the cost of conventional care for patients at the end of life. Under the cap, if a hospice's total Medicare payments exceed its total number of Medicare beneficiaries served multiplied by the cap amount (\$29,205 in 2018), it must repay the excess to the program.^{7,8,9} This cap is not applied individually to the payments received for each beneficiary, but rather to the total payments across all Medicare patients served by the hospice in the cap year. The number of hospices that exceed the payment cap has been low, historically, but we have found that increases in the number of hospices and increases in very long stays have resulted in more hospices exceeding the cap, with the number peaking at 12.7 percent in the most recent year of data (2016). The hospice cap is the only significant fiscal constraint on the growth of program expenditures for hospice care (Hoyer 2007).

Are Medicare payments adequate in 2019?

To address whether payments in 2019 are adequate to cover the costs of the efficient delivery of care and how much providers' payments should change in the coming year (2020), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries' access

**TABLE
12-2****Use of hospice continues to increase****Share of Medicare decedents who used hospice**

	2000	2014	2015	2016	2017	Average annual percentage point change 2000–2016	Percentage point change 2016–2017
All beneficiaries	22.9%	47.9%	48.6%	49.7%	50.4%	1.7	0.7
FFS beneficiaries	21.5	46.8	47.6	48.7	49.5	1.7	0.8
MA beneficiaries	30.9	50.9	51.1	51.9	52.4	1.3	0.5
Dual eligibles	17.5	42.6	43.1	44.1	44.9	1.7	0.8
Medicare only	24.5	49.6	50.3	51.5	52.1	1.7	0.6
Age							
<65	17.0	29.5	29.9	30.1	30.4	0.8	0.3
65–74	25.4	40.8	41.2	41.5	41.6	1.0	0.1
75–84	24.2	49.0	49.5	50.7	51.2	1.7	0.5
85+	21.4	56.1	57.1	59.2	60.3	2.4	1.1
Race/ethnicity							
White	23.8	49.8	50.5	51.8	52.5	1.8	0.7
African American	17.0	37.6	38.3	38.9	39.5	1.4	0.6
Hispanic	21.1	41.4	41.9	42.9	42.7	1.4	–0.2
Asian American	15.2	33.8	35.4	36.0	36.9	1.3	0.9
North American Native	13.0	34.8	35.0	35.8	36.2	1.4	0.4
Sex							
Male	22.4	43.9	44.5	45.4	46.0	1.4	0.6
Female	23.3	51.5	52.3	53.7	54.5	1.9	0.8
Beneficiary location							
Urban	24.2	49.1	49.7	50.8	51.3	1.7	0.5
Micropolitan	18.3	44.1	44.9	46.3	47.2	1.8	0.9
Rural, adjacent to urban	17.5	43.4	44.5	45.7	46.9	1.8	1.2
Rural, nonadjacent to urban	15.0	38.1	38.9	40.3	41.5	1.6	1.2
Frontier	13.1	32.5	33.6	33.8	34.4	1.3	0.6

Note: FFS (fee-for-service), MA (Medicare Advantage). Beneficiary location reflects the beneficiary's county of residence in one of four categories (urban, micropolitan, rural adjacent to urban, or rural nonadjacent to urban) based on an aggregation of the urban influence codes. This chart uses the 2013 urban influence code definition. The frontier category is defined as population density equal to or less than six people per square mile and overlaps with the beneficiary county of residence categories. Yearly figures presented in the table are rounded, but figures in the percentage point change columns were calculated using unrounded data.

Source: MedPAC analysis of data from the denominator file and the Medicare Beneficiary Database from CMS.

to care by examining the capacity and supply of hospice providers, changes over time in the volume of services provided, quality of care, providers' access to capital, and the relationship between Medicare's payments and providers' costs. Overall, the Medicare payment adequacy indicators for hospice providers are positive.

Beneficiaries' access to care: Use of hospice continues to increase

In 2017, hospice use among Medicare beneficiaries increased, continuing the trend of a growing proportion of beneficiaries using hospice services at the end of life. Of the Medicare beneficiaries who died that year, 50.4 percent

used hospice, up from 49.7 percent in 2016 and 22.9 percent in 2000 (Table 12-2). Hospice use varied in 2017 by beneficiary characteristics—enrollment in traditional fee-for-service (FFS) Medicare or Medicare Advantage (MA); Medicare-only beneficiaries and beneficiaries dually eligible for Medicare and Medicaid; age, race, and sex; and urban or rural residence—but increased in all of these groups except for Hispanics.

Hospice use is higher among decedents in MA than in FFS, but the gap has been closing (Table 12-2). In 2017, about 50 percent of Medicare FFS decedents and about 52 percent of MA decedents used hospice. MA plans do not provide hospice services. Once a beneficiary in an MA plan elects hospice care, the beneficiary receives hospice services through a provider paid by Medicare FFS. In March 2014, the Commission urged that this policy be changed, recommending that hospice be included in the MA benefits package (Medicare Payment Advisory Commission 2014).

Hospice use varies by other beneficiary characteristics (Table 12-2). In 2017, a smaller proportion of Medicare decedents who were dually eligible for Medicare and Medicaid used hospice compared with the rest of Medicare decedents (45 percent and 52 percent, respectively). Hospice use was least prevalent among Medicare decedents under age 65 (who are also likely to be dually eligible) and most prevalent among those age 85 and older (about 30 percent vs. 60 percent, respectively). Female beneficiaries were also more likely than male beneficiaries to use hospice, which partly reflects the longer average life span for women and greater hospice use among older beneficiaries.

Hospice use also varies by racial and ethnic group (Table 12-2). As of 2017, Medicare hospice use was highest among White decedents, followed by Hispanic, African American, Asian American, and North American Native decedents, in that order. Hospice use grew across all these groups between 2016 and 2017 except for Hispanics, for whom the rate declined slightly (from 42.9 percent to 42.7 percent). Overall since 2000, hospice use has grown substantially for all racial and ethnic groups, but differences persist across these groups in the rates of use. The reasons for these differences are not fully understood. Researchers have cited a number of possible factors, such as cultural or religious beliefs, preferences for end-of-life care, socioeconomic factors, disparities in access to care or information about hospice, and mistrust of the medical system (Barnato et al. 2009, Cohen 2008, Crawley et al. 2000).

Hospice use is higher for urban than rural beneficiaries, although use has grown across all area categories (Table 12-2).¹⁰ In 2017, the share of decedents residing in urban counties who used hospice was about 51 percent; in micropolitan counties and rural counties adjacent to urban counties, about 47 percent; in rural nonadjacent counties, almost 42 percent; and in frontier counties, about 34 percent. Utilization rates for beneficiaries residing in all these areas increased in 2017.

One driver of increased hospice use over the past decade has been growing use by patients with noncancer diagnoses, owing to increased recognition that hospice can care for such patients. At the same time, beneficiaries with these terminal conditions tend to have longer hospice stays, which have historically been more profitable than shorter stays under Medicare's hospice payment system. In 2017, 74 percent of Medicare beneficiaries who used hospice had a noncancer diagnosis, compared with 73 percent in 2016 and 48 percent in 2000 (data not shown). As of 2017, the most common noncancer primary diagnoses reported among hospice beneficiaries were heart and circulatory disorders (28 percent) and neurological conditions (23 percent).

Capacity and supply of providers: Supply of hospices continues to grow, driven by growth in for-profit providers

In 2017, 4,488 hospices provided care to Medicare beneficiaries, a 2.4 percent increase from the prior year, continuing more than 10 years of growth in the number of hospices providing care to Medicare beneficiaries (Table 12-3, p. 318). For-profit hospices accounted entirely for the net increase in the number of hospices. Between 2016 and 2017, the number of for-profit hospices increased by about 5 percent, while the number of nonprofit hospices and government-owned hospices declined by 3.5 percent and 4.8 percent, respectively. As of 2017, about 69 percent of hospices were for profit, 27 percent were nonprofit, and 4 percent were government owned.

Between 2016 and 2017, freestanding hospices (which are highly correlated with for-profit ownership status) accounted for all of the net increase in the number of providers (Table 12-3, p. 318). During this period, the number of freestanding providers increased by 4.5 percent, while the number of hospital-based hospices and home health-based hospices declined by 6.0 percent and 2.5 percent, respectively.¹¹ The number of skilled nursing

**TABLE
12-3****Increase in total number of hospices driven by growth in for-profit providers**

Category	2000	2007	2015	2016	2017	Average annual percent change		Percent change 2016-2017
						2000-2007	2007-2016	
All hospices	2,255	3,250	4,199	4,382	4,488	5.4%	3.4%	2.4%
For profit	672	1,676	2,729	2,940	3,097	13.9	6.4	5.3
Nonprofit	1,324	1,337	1,294	1,274	1,230	0.1	-0.5	-3.5
Government	257	237	176	168	160	-1.2	-3.8	-4.8
Freestanding	1,069	2,103	3,163	3,369	3,519	10.1	5.4	4.5
Hospital based	785	683	517	501	471	-2.0	-3.4	-6.0
Home health based	378	443	494	487	475	2.3	1.1	-2.5
SNF based	22	21	25	25	22	-0.7	2.0	-12.0
Urban	1,455	2,237	3,235	3,474	3,587	6.6	5.0	3.3
Rural	757	965	920	901	878	3.5	-0.8	-2.6

Note: SNF (skilled nursing facility). Some categories do not sum to total because of missing data for some providers. The rural and urban definitions used in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census).

Source: MedPAC analysis of Medicare cost reports, Medicare Provider of Services file, and the 100 percent hospice claims standard analytical file from CMS.

facility (SNF)-based hospices, which is very small, declined by three providers. As of 2017, about 78 percent of hospices were freestanding, 10 percent were hospital based, 11 percent were home health based, and less than 1 percent were SNF based.

Overall, the supply of hospices increased substantially between 2000 and 2017 in both urban and rural areas. The number of rural hospices has declined since its peak in 2007, with a decline of about 3 percent in 2017 (Table 12-3). As of 2017, 80 percent of hospices were in urban areas and 20 percent were in rural areas. The number of hospices in rural areas is not necessarily reflective of hospice access for rural beneficiaries for several reasons. A count of the number of rural hospices does not capture the size of those hospice providers, their capacity to serve patients, or the size of their service area. Furthermore, a count of rural hospices does not take into account hospices with offices in urban areas that also provide services in rural areas. While the number of rural hospices has declined in the last several years, the share of rural decedents using hospice grew over this same period.

Most of the growth in the number of hospices in 2017 was concentrated in two states—California and Texas. Between 2016 and 2017, California gained 114 hospices and Texas gained 30 hospices, continuing the trend in recent years of substantial market entry by hospice providers in these two states. Since 2013, California has gained an additional 100 hospices each year, and Texas has gained an additional 30 hospices each year on average. In 2017, some states saw the number of hospice providers decline, although these changes were generally modest. The five states (Alabama, Indiana, Louisiana, Oklahoma, and South Carolina) with the largest decline in the number of providers in 2017 experienced an increase in hospice use among decedents that year.

The number of hospice providers is not necessarily an indicator of beneficiary access to hospice. The supply of providers—as measured by the number of hospices per 10,000 Medicare decedents—varies substantially across states. In the past, we have concluded that there is no relationship between the supply of hospice providers and the rate of hospice use across states (Medicare Payment Advisory Commission 2010).

**TABLE
12-4****Hospice utilization and spending continued to increase in 2017**

Category	2000	2015	2016	2017	Average annual change, 2000–2015	Change, 2015–2016	Change, 2016–2017
Total spending (in billions)	\$2.9	\$15.9	\$16.8	\$17.9	11.9%	6.0%	6.4%
Number of hospice users (in millions)	0.534	1.381	1.427	1.492	6.5%	3.3%	4.6%
Number of hospice days for all hospice beneficiaries (in millions)	25.8	95.9	101.2	106.3	9.1%	5.5%	5.1%
Average length of stay among decedents (in days)	53.5	86.7	87.8	88.6	3.3%	1.3%	0.9%
Median length of stay among decedents (in days)	17	17	18	18	0 days	1 day	0 days

Note: Average length of stay is calculated for decedents who were using hospice at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime. Total spending, number of hospice users, number of hospice days, and average length of stay displayed in the table are rounded; the percentage change for number of users and total spending is calculated using unrounded data.

Source: MedPAC analysis of the denominator file, the Medicare Beneficiary Database, and the 100 percent hospice claims standard analytical file from CMS.

Volume of services: Hospice use and length of stay increased in 2017

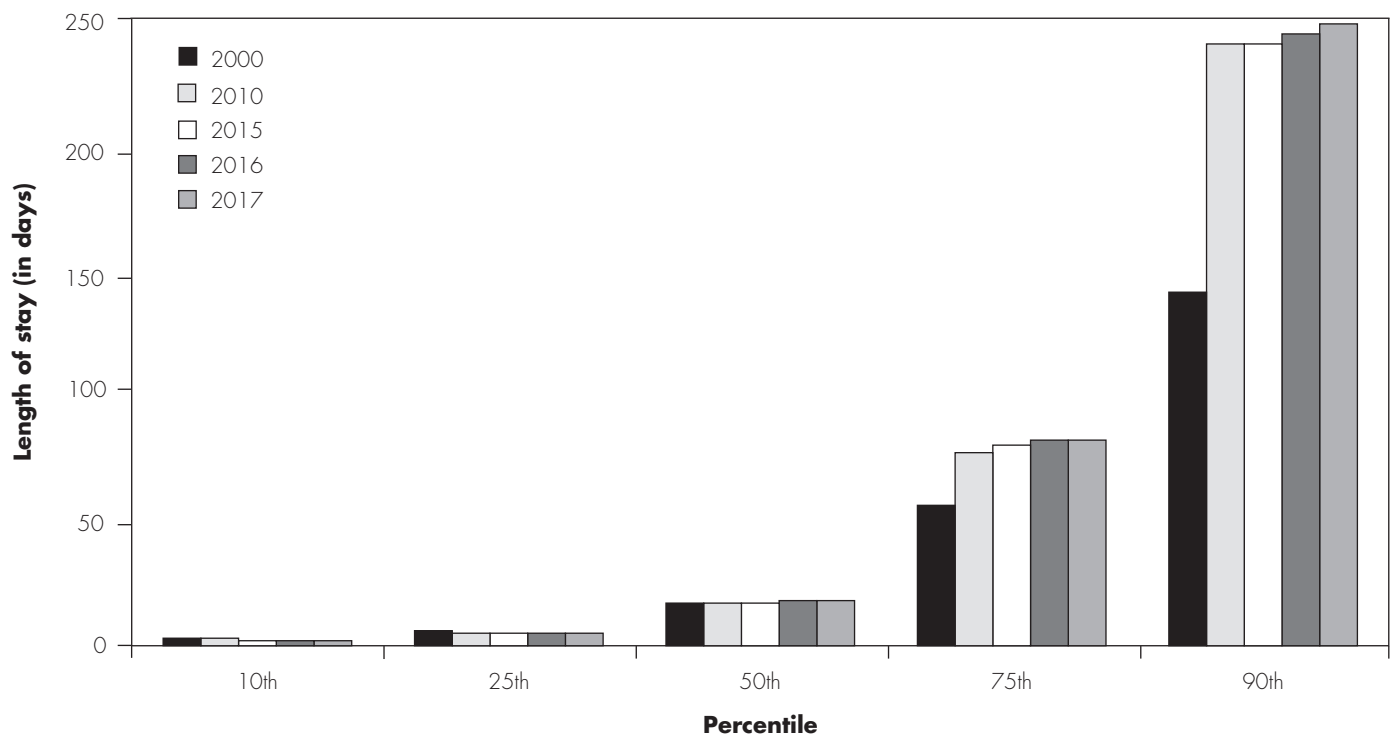
In 2017, the number of Medicare beneficiaries receiving hospice services continued to increase. About 1.49 million beneficiaries used hospice services, up 4.6 percent from 2016 (Table 12-4). Between 2016 and 2017, the number of hospice days furnished to Medicare beneficiaries also increased about 5 percent from about 101 million days to about 106 million days. During that period, the mix of hospice days by level of care shifted: The share of days accounted for by routine home care increased slightly.¹²

Between 2016 and 2017, hospice average length of stay among decedents increased slightly from 87.8 days to 88.6 days, while median length of stay was stable at 18 days (Table 12-4). Growth in average length of stay was driven by an increase in length of stay for patients with the longest stays. During this period, hospice length of stay at the 90th percentile increased from 244 days to 248 days (Figure 12-1, p. 320). In contrast, length of stay remained unchanged at the 10th percentile (2 days), 25th percentile (5 days), 50th percentile (18 days), and 75th percentile (82 days).

Since 2000, growth in hospice length of stay has largely been the result of increased length of stay among patients with the longest stays while short stays have changed little. Hospice length of stay at the 90th percentile grew substantially between 2000 and 2010—from 141 days to 240 days—and has grown modestly since then, reaching 248 days in 2017. In contrast, since 2000, the median length of stay has remained at 17 or 18 days; the 25th percentile, at 5 or 6 days; and 10th percentile, at 2 or 3 days.

Hospice length of stay is generally similar for hospice decedents in FFS Medicare and MA. The most significant difference is that very long stays in hospice are slightly shorter for beneficiaries in MA than for those in FFS (243 days for MA beneficiaries compared with 250 days for FFS beneficiaries at the 90th percentile of stays as of 2017). There were also slight differences at the median (18 days for MA beneficiaries vs. 17 days for FFS beneficiaries) and 75th percentile (80 days for MA beneficiaries vs. 82 days for FFS beneficiaries).

With growing use of hospice, rates of patients dying in the hospital have declined, but evidence is mixed on the

**FIGURE
12-1****Length of stay among hospice patients with the longest stays increased slightly in 2017**

Note: Length of stay is calculated for decedents who were using hospice at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime.

Source: MedPAC analysis of the Medicare Beneficiary Database from CMS.

extent to which the decline has been accompanied by a reduction in the overall intensity of care in the last months of life. Teno et al. (2018) found that between 2000 and 2015, the share of Medicare FFS decedents ages 65 and older dying in the hospital declined (from 32.6 percent to 19.8 percent). In addition, some indicators of intensity of care increased at the beginning of the 2000 to 2015 window but decreased in later years, with the net effect being an overall decrease by 2015. For example, between 2000 and 2015, the share of beneficiaries with 3 or more hospitalizations in the last 90 days of life and the share with multiple hospitalizations for infections or dehydration in the last 120 days of life declined. At the same time, the study found that other indicators of intensity of care have increased. For example, the share of beneficiaries receiving treatment in an intensive care unit during the

last month of life increased between 2000 and 2009 (from 24.3 percent to 29.2 percent) and has changed little between 2009 and 2015. The share of beneficiaries with a hospitalization in the last 90 days of life increased between 2000 and 2005, and has declined since then, but remains higher in 2015 than it was in 2000. This increase in the intensity of some aspects of end-of-life care may in part reflect referrals to hospice occurring in only the last few days of life for some beneficiaries.

The Commission has previously expressed concern about very short hospice stays. More than one-quarter of hospice decedents enroll in hospice only in the last week of life, a length of stay that is commonly thought to be of less benefit to patients than enrolling somewhat earlier. Very short hospice stays occur across a wide range of diagnoses (Table 12-5). These very short stays stem largely from

**TABLE
12-5****Hospice length of stay among decedents by
beneficiary and hospice characteristics, 2017**

Characteristic	Average length of stay (in days)	Percentile of length of stay				
		10th	25th	50th	75th	90th
Beneficiary						
Diagnosis						
Cancer	52	3	6	17	51	129
Neurological conditions	149	4	9	36	170	440
Heart/circulatory	94	2	5	16	87	279
COPD	118	2	6	27	126	344
Other	54	2	3	17	35	148
Main location of care						
Home	91	4	9	26	88	242
Nursing facility	105	3	6	20	97	307
Assisted living facility	153	5	13	51	186	436
Hospice						
Hospice ownership						
For profit	109	3	6	23	102	319
Nonprofit	67	2	4	13	56	181
Type of hospice						
Freestanding	91	2	5	18	80	259
Home health based	68	2	5	14	59	186
Hospital based	56	2	4	12	47	149

Note: COPD (chronic obstructive pulmonary disease). Length of stay is calculated for Medicare beneficiaries who died in 2017 and used hospice that year and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime. "Main location" is where the beneficiary spent the largest share of his or her days while enrolled in hospice. "Diagnosis" reflects primary diagnosis on the beneficiary's last hospice claim.

Source: MedPAC analysis of the 100 percent hospice claims standard analytical file, the Medicare Beneficiary Database, Medicare hospice cost reports, and Medicare Provider of Services file from CMS.

factors unrelated to the Medicare hospice payment system: Some physicians are reluctant to have conversations about hospice or tend to delay such discussions until death is imminent; some patients and families have difficulty accepting a terminal prognosis; and financial incentives in the FFS system encourage increased volume of clinical services (Medicare Payment Advisory Commission 2009). In addition, some analysts point to the requirement that beneficiaries forgo conventional nonpalliative care to enroll in hospice as a factor that contributes to deferring hospice care, resulting in short hospice stays.

A number of initiatives seek to address concerns about potentially late hospice enrollments and the quality of end-of-life care more generally. CMS launched a model (called the Medicare Care Choices Model (MCCM)) that permits certain FFS beneficiaries who are eligible for hospice (but not enrolled in the Medicare hospice benefit) to enroll in the model and receive palliative and supportive care from a hospice provider while continuing to receive "curative" care from other providers.¹³ Beginning in 2016, under the physician fee schedule, Medicare pays for advance care

New models and services related to end-of-life care

The Medicare Care Choices Model (MCCM) being tested by CMS's Center for Medicare & Medicaid Innovation and advance care planning visits that became billable under the Medicare physician fee schedule in 2016 are two recent initiatives that have the potential to affect end-of-life care and hospice use.

Medicare Care Choices Model. The MCCM is a model that offers certain beneficiaries who are hospice eligible but not enrolled in hospice the option of receiving supportive services from a hospice while continuing to receive conventional care. The model is intended to test whether beneficiaries would be willing to elect supportive palliative care from hospice providers and what the effect is on quality of care, cost of care, and whether beneficiaries will subsequently choose to enroll in the Medicare hospice benefit.

Under the MCCM, care is directed by the nonhospice provider who referred the beneficiary to the model, and the hospice provider plays a supportive role. Hospice providers are paid \$400 per month (\$200 per half month) to provide supportive services such as care coordination, symptom management, counseling, in-home nurse and aide visits, and other services determined to meet the patient's needs based on a comprehensive assessment.

The model is scheduled to span five years, from January 2016 through December 2020. CMS selected about 140 hospice providers to participate, with participation being phased in (half were scheduled to start in January 2016 and the remainder in January 2018). During model development, CMS indicated that the model could enroll up to 150,000 beneficiaries.

To be eligible to enroll in the MCCM, a beneficiary must:

- have certain terminal diagnoses (i.e., cancer, chronic obstructive pulmonary disease, human immunodeficiency virus/acquired immune deficiency syndrome, or congestive heart failure) and a life expectancy of six months or less if the disease runs its normal course;

- in the last 12 months have been enrolled in Medicare fee-for-service (FFS) Part A and Part B, had at least 1 hospital encounter, and had at least 3 office visits;
- in the last 30 days have continuously lived in a traditional home and not been enrolled in the Medicare hospice benefit; and
- live in an area served by a hospice participating in the model.

In April 2016 and January 2017, CMS relaxed some of the MCCM eligibility criteria in an effort to address low enrollment. The criteria described above reflect those changes.

A CMS contractor released its first report evaluating the MCCM (Miescier 2018), which covers the first 18 months (January 2016 to June 2017). Enrollment in the model (about 1,100 enrollees) has been lower than expected and some hospices selected for the model have withdrawn. The report attributes low enrollment in part to the eligibility criteria limiting potential participants. Hospices that withdrew from the model cited concerns about low enrollment, reporting requirements, and the adequacy of the \$400 per month payment. Enrollment in the model has been concentrated among a few hospices, with 8 out of 71 hospices accounting for 59 percent of enrollment.

Because of the low number of participants, the first evaluation report was unable to estimate the impact of the MCCM on utilization of services and spending, compared with what would have occurred in the absence of the program. However, the report provides initial data on participants' service use, expenditures, and transitions to hospice. Those beneficiaries who participated in the MCCM and died before June 30, 2017, were in the program an average of 64 days and received about 11 visits, calls, or mail or email contacts per month from hospice staff, with about three-quarters of those contacts being in person. Services were most commonly provided by care coordinators, nurses, and counselors. About 83 percent of those

(continued next page)

New models and services related to end-of-life care (cont.)

MCCM beneficiaries who died before June 30, 2017, transitioned to the hospice benefit before death, with an average length of hospice enrollment of 30 days. It is also notable that among those beneficiaries who were referred to and eligible for the MCCM, about a quarter chose to enroll directly into hospice rather than the MCCM. The report found that MCCM enrollees and caregivers were satisfied with the support and services received from the MCCM.

Advance care planning visits. Advance care planning can make it easier for interested beneficiaries to create advance directives or medical orders for life-sustaining treatment and can facilitate care consistent with individual patients' preferences. Beginning in 2016, Medicare covers advance care planning conversations for beneficiaries who wish to receive these services and pays for these conversations (between a beneficiary and his or her physician, an advanced practice registered nurse, or a physician assistant) under the physician fee schedule. In 2016 and 2017, the Medicare program and beneficiaries spent \$50 million and \$86 million, respectively, on advance care planning visits; in these years, the numbers of FFS beneficiaries who received an advance care planning visit were about 560,000 and 960,000, respectively.

Because advance care planning services only began being covered in 2016 and because these services are available to patients at various stages of health, it is not surprising that only a small share of beneficiaries who received advance planning services in 2016 enrolled in

**TABLE
12-6**

Use of hospice among decedents who received an advance care planning visit, 2016

	Share of beneficiaries who received advance care planning visit in 2016
Died in 2016	8.4%
Used hospice	5.0
Did not use hospice	3.5
Died in 2017	7.3
Used hospice	4.4
Did not use hospice	2.9

Note: Numbers may not sum to totals due to rounding.

Source: MedPAC analysis of data from the denominator file, the Medicare Beneficiary Database, and Medicare claims data from CMS.

hospice or died in 2016 or 2017. Of those receiving an advance care planning visit in 2016, about 16 percent died in 2016 or 2017, and nearly 60 percent of those individuals used hospice the year they died (Table 12-6). The rate of hospice use among decedents receiving an advance care planning visit is higher than the overall rate of hospice use for decedents (see Table 12-2, p. 316). However, it is too soon to know whether advance care planning is contributing to an increase in hospice use rates. ■

planning conversations between a beneficiary and his or her physician and for advanced-practice registered nurse or physician assistant care. (For additional information on early experience with the MCCM and the advance care planning visits, see text box). In March 2014, the Commission recommended that hospice be included in the MA benefits package, which would give plans

greater incentives to develop and test new models aimed at improving end-of-life care and care for beneficiaries with advanced illnesses (Medicare Payment Advisory Commission 2014). Accountable care organizations (ACOs)—which are accountable for a defined Medicare population's total spending, including end-of-life care and hospice—have been seen as entities that could have opportunities to improve end-of-life care and reduce

**TABLE
12-7****More than half of Medicare hospice spending in 2017 was for patients with stays exceeding 180 days**

	Medicare hospice spending, 2017 (in billions)
All hospice users in 2017	\$17.9
Beneficiaries with LOS > 180 days	10.1
Days 1–180	3.4
Days 181–365	3.2
Days 366+	3.6
Beneficiaries with LOS ≤ 180 days	7.8

Note: LOS (length of stay). “LOS” indicates the beneficiary’s lifetime LOS as of the end of 2017 (or at the time of discharge in 2017 if the beneficiary was not enrolled in hospice at the end of 2017). All spending presented in the chart occurred only in 2017. Components may not sum to total because of rounding.

Source: MedPAC analysis of the 100 percent hospice claims standard analytical file and the common Medicare enrollment file from CMS.

costs since it is commonly thought that “end-of-life care is often overly aggressive and inconsistent with patients’ preferences” (Gilstrap et al. 2018). Research examining the effect of ACOs on patterns of end-of-life care and hospice use are nascent, but findings to date suggest the effects are modest (Gilstrap et al. 2018).

The Commission has also expressed concern about very long hospice stays. In 2017, Medicare spent about \$10 billion, more than half of hospice spending that year, on patients with stays exceeding 180 days (Table 12-7). About \$3.6 billion of that spending was on additional hospice care for patients who had already received at least one year of hospice services. Under the flat per diem payment system, which was in effect before 2017, long stays were more profitable than short stays, which appears to have led some hospices to pursue revenue-generation strategies by focusing on patients with long stays, some share of whom did not meet the eligibility criteria. Although the 2017 payment changes reduced payments for long stays and increased payments for short stays to some extent, patients with long stays continue to account for a large share of hospice spending.

Hospice lengths of stay vary by observable patient characteristics, such as patient diagnosis and location, which permit providers to identify and enroll patients likely to have long (more profitable) stays if they wish to do so (Table 12-5, p. 321). For example, Medicare decedents in 2017 with neurological conditions and chronic obstructive pulmonary disease had substantially higher average lengths of stay (149 days and 118 days, respectively) compared with decedents with cancer (52 days).¹⁴ While a number of factors affect length of stay for hospice beneficiaries, differences in the degree of uncertainty associated with predicting life expectancy for various conditions contribute to length of stay differences by condition. Length of stay also varies by the setting in which care is provided. In 2017, average length of stay was higher among Medicare decedents whose main care setting was an assisted living facility (ALF) (153 days) or a nursing facility (105 days) compared with home (91 days) (Table 12-5, p. 321). In particular, hospice patients in ALFs had markedly longer stays compared with other settings, even for the same diagnosis, which warrants further monitoring and investigation in CMS’s medical review efforts.

Lengths of stay vary by type of provider ownership as well as by patient characteristics (Table 12-5, p. 321). In 2017, average length of stay was substantially longer among for-profit hospices than among nonprofit hospices (109 days compared with 67 days, respectively). The reason for longer length of stay among for-profit hospices has two components: (1) for-profit hospices have more patients with diagnoses that tend to have longer stays, and (2) for-profit hospice beneficiaries have longer stays for all diagnoses than beneficiaries who receive care from nonprofit hospices. For example, among decedents with a neurological diagnosis, the average length of stay was 177 days in for-profit hospices and 118 days in nonprofits (data not shown).

Among the hospices with very long stays are those that exceed the hospice aggregate cap. In 2016, about 12.7 percent of hospices exceeded the aggregate payment cap, a small increase from the prior year (12.3 percent in 2015) (Table 12-8).¹⁵ On average, above-cap hospices exceeded the cap by about \$295,000 in 2016. The average amount by which above-cap hospices exceed the aggregate cap has been decreasing over time. As shown in prior reports, above-cap hospices have substantially longer stays and higher rates of discharging patients alive than other hospices.¹⁶ This pattern suggests that above-cap hospices

**TABLE
12-8****Hospices that exceeded Medicare's annual payment cap, selected cap years**

	2002	2013	2014	2015	2016
Percent of hospices exceeding the cap	2.6%	10.7%	12.2%	12.3%	12.7%
Average payments over the cap per hospice exceeding it (in thousands)	\$470	\$460	\$370	\$320	\$295
Payments over the cap as percent of overall Medicare hospice spending	0.6%	1.3%	1.2%	1.0%	1.0%
Total Medicare hospice spending (in billions)	\$4.4	\$15.1	\$15.0	\$15.7	\$16.7

Note: The cap year is defined as the period beginning November 1 and ending October 31 of the following year. Total spending for 2002 reflects the fiscal year; total spending for years 2012 to 2016 reflects the cap year.

Source: MedPAC analysis of 100 percent hospice claims standard analytical file, Medicare hospice cost reports, and Medicare Provider of Services file from CMS. Data on total spending are from the CMS Office of the Actuary or MedPAC estimates.

are admitting patients who do not meet the hospice eligibility criteria, which merits further investigation by the Office of Inspector General and CMS.

With the variation in practice patterns across hospices and concerns about potential for some hospices to focus on patients likely to have long stays and high profitability, the Commission has advocated over the years for a targeted approach to auditing hospice providers, focusing the most resources on providers for which such scrutiny is warranted. In March 2009, the Commission recommended that CMS conduct medical reviews of all hospice stays exceeding 180 days among those hospice providers for which these long stays exceeded a specified share of the provider's caseload. Similarly, in this report and prior reports, the Commission has expressed concern about very long hospice stays in ALFs among some hospice providers and about long stays and high live-discharge rates among above-cap hospices. The Commission has suggested that more program integrity scrutiny is warranted in those areas.

Another targeted auditing approach that could be considered is to focus on providers that receive a high share of their payments for hospice patients before the last year of life. As discussed in detail in our March 2017 report, the share of payments hospice providers receive for a beneficiary's care before the last year of life varies across providers. A provider with an unusually high share of payments derived from care furnished to patients earlier in the disease trajectory—for example, before the last year

of life—could signal questionable admitting practices and warrant further program integrity scrutiny of those providers (Medicare Payment Advisory Commission 2017).

Visits in the last days of life

One feature of the new hospice payment system implemented in 2016 is that it provides additional payment for certain visits in the last days of life. The purpose of these additional payments, referred to as service intensity adjustment (SIA) payments, is to compensate hospices for the higher patient need and visit intensity in the last days of life. Under the new payment system, the hospice provider is eligible for additional SIA payments for registered nurse and social worker visits that occur during the last seven days of life for patients receiving routine home care. These payments are in addition to the base payment that the hospice receives for each day of care. These visits are paid at an hourly rate (up to four hours per day) as a means of targeting the payments toward those hospices that provide more visits in the last days of life.

We estimate that, in 2017, Medicare paid hospice providers roughly \$130 million for registered nurse and social worker visits in the last seven days of life. We examined the frequency and length of visits that occurred in the last days of life between 2015 and 2017 to see if they changed over the first two years of the new payment system. The prevalence and length of visits in the last days

**TABLE
12-9****Nurse and social worker visit time in the last days of life changed little under the new payment system that began in 2016**

	2015	2016	2017
Nurse visits in last 7 days of life			
Average number of visits per day	0.59	0.61	0.63
Average length of each visit (in 15-minute increments)	5.00	4.84	4.66
Average visit time per day (in 15-minute increments)	2.96	2.95	2.92
Social worker visits in last 7 days of life			
Average number of visits per day	0.09	0.09	0.10
Average length of visits (in 15-minute increments)	4.22	4.30	4.00
Average visit time per day (in 15-minute increments)	0.37	0.40	0.40

Note: Nurse visits include both registered nurse (RN) and licensed practical nurse (LPN) visits. Although the new payment system makes additional payments only for RN (not LPN) visits in the last days of life, we have included both types of visits in this chart because data specific to RNs are not available for 2015.

Source: MedPAC analysis of 100 percent hospice claims standard analytical file data from CMS.

of life changed very modestly between 2015 and 2017 (Table 12-9). Overall, between 2015 and 2017, the average number of nurse visits per day increased somewhat (from 0.59 visits per day to 0.63 visits per day) during the last 7 days of life. At the same time, the average length of nurse visits during the last days of life appears to have declined slightly, from about 75 minutes (5.0 fifteen-minute increments) to 70 minutes (4.66 fifteen-minute increments) per visit. The modest increase in nurse visit frequency offset the modest decrease in the length of visits, with the average visit time per day remaining about 44 minutes (2.92 to 2.96 15-minute increments). Social worker visits in the last days of life were less frequent and changed little during this period. Overall, these data suggest that, in the first two years of the new payment system, the additional SIA payments have led to little change in the amount of time spent furnishing visits to patients at the end of life.

Marginal profit as a measure of access

Another measure of access is whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than

the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries.¹⁷ For hospice providers, we find that Medicare payments in 2017 exceeded marginal costs by roughly 14 percent, suggesting that providers had an incentive to treat Medicare patients. This profit margin is thus a positive indicator of patient access.

Quality of care: Data on hospice quality are limited

CMS has had a hospice quality reporting program underway for several years, but data on hospice quality are limited. Since 2017, Hospice Compare has included data on seven measures that seek to gauge whether appropriate processes of care occurred at hospice admission. Most hospices scored very high on six of the seven quality measures, which is positive but limits the utility of these measures to differentiate performance across providers. Scores on one process measure (a pain assessment measure) and a composite measure (based on the seven process measures) were somewhat lower and more varied. In 2018, provider-level data from the hospice Consumer Assessment of Healthcare Providers and Systems® (CAHPS®)—which is a survey of bereaved

family members of hospice patients—became available for the first time. Scores on the hospice CAHPS measures are generally high, but there is more variation and potential for improvement with the CAHPS measures than the process measures. CMS has also established additional quality measures related to the provision of hospice visits at the end of life that will be available on Hospice Compare in the future.

Background on the Hospice Quality Reporting Program

In accord with PPACA, beginning in fiscal year 2014, hospices that do not report quality data receive a 2 percentage point reduction in their annual payment update. Since July 2014, hospices have been required to report data on seven process measures that address important aspects of care for patients newly admitted to hospice, using a reporting tool called the Hospice Item Set. These measures focus on pain screening, pain assessment, dyspnea screening, dyspnea treatment, documentation of treatment preferences, the addressing of beliefs and values if desired by the patient, and provision of a bowel regimen for patients treated with an opioid. Hospices were required to report on these measures during the second half of calendar year 2014 to receive a full payment update in fiscal year 2016. Hospices continue to be required to report on these measures.

CMS added two quality measures effective April 2017. The first measure consists of a pair of indicators related to hospices' provision of visits when death is imminent: (1) the share of patients receiving a registered nurse, physician, nurse practitioner, or physician assistant visit in the last three days of life and (2) the share of patients receiving at least two visits from a social worker, chaplain or spiritual counselor, licensed practical nurse, or hospice aide in the last seven days of life. The second measure is a composite measure that gauges the share of patients who received all seven of the original process measures on admission to hospice.

In 2015, the Hospice Quality Reporting Program began requiring hospice providers (except very small providers) to participate in a CAHPS hospice survey. Hospices are required to contract with a CMS-approved vendor to administer the survey. The survey gathers information from the patient's informal caregiver (typically a family member) after the patient's death. The survey addresses aspects of hospice care that are thought to be important

to patients and for which informal caregivers are positioned to provide information. In particular, the survey collects information on how the hospice performed in the following areas: communicating, providing timely care, treating patients with respect, providing emotional support, providing help for symptom management, providing information on medication side effects, and training family or other informal caregivers in the home setting. Participation in the CAHPS hospice survey and the Hospice Item Set affects payment updates for fiscal year 2017 and thereafter.

Hospice performance on process measures related to care at admission

Hospices' performance on seven quality measures related to processes of care at hospice admission is very high for almost all measures. For six of the seven process measures in 2017, hospices performed the process appropriately between about 96 percent and 99 percent of the time (aggregate score across all hospices) (Table 12-10, p. 328). Aggregate performance on the pain assessment measure—which indicates the share of patients who received a comprehensive pain assessment within one day of screening positive for pain—was somewhat lower at about 88 percent. CMS's composite measure reflects the share of admitted patients for whom the hospice performed all seven activities appropriately (or performed appropriately all the activities relevant to the patient). The 2017 aggregate score on a composite of the seven process measures was 86 percent. Between 2016 and 2017, aggregate scores for each of the seven process measures and the composite measure increased.

Across hospice providers, performance on most process measures varied little. In 2017, for all measures except pain assessment, at least three-quarters of hospices performed the activity appropriately between about 94 percent and 100 percent of the time. On the pain assessment process measure, scores varied somewhat more, ranging from about 78 percent at the 25th percentile to about 98 percent at the 75th percentile. The composite measure scores also varied (from about 75 percent at the 25th percentile to almost 95 percent at the 75th percentile).

Although the high scores on these quality measures are encouraging, the Commission has several concerns about these measures. Because they are process measures, it is uncertain how much they affect quality from the perspective of patients and families. Six of the seven

**TABLE
12-10****Scores on the seven hospice process measures increased in 2017 and are mostly topped out**

Measure	2016 aggregate average	2017 aggregate average	2017 provider percentiles		
			25th	50th	75th
Treatment preferences	98.5%	99.1%	99.4%	100.0%	100.0%
Beliefs and values	94.2	96.3	95.6	99.2	100.0
Dyspnea screening	98.1	98.7	98.0	99.6	100.0
Dyspnea treatment	96.6	97.3	95.0	98.4	100.0
Pain screening	94.9	96.7	95.0	98.4	100.0
Pain assessment	76.7	87.5	78.3	90.9	98.1
Bowel regimen	95.4	96.5	94.0	98.9	100.0
Composite of all 7 measures	78.7	86.0	75.0	86.7	94.6

Note: The numbers in the chart refer to the share of times a hospice appropriately performed a process measure at admission (among patients for whom the process measure was relevant). The composite of all seven process measures represents the share of patients for whom the hospice appropriately performed all seven process measures (or all of the subset of process measures relevant to the patient) at admission. The aggregate average is a beneficiary-level estimate and reflects the share of all patients nationally for whom the process measure was appropriately performed at admission. The percentiles reflect provider-level performance scores.

Source: MedPAC analysis of Hospice Item Set data from CMS.

individual process measures are topped out. Scores on the pain assessment measure and the composite measure are somewhat lower, but these measures could also be at risk of topping out in the future if performance continues to improve.

CAHPS data for individual providers first became available on Hospice Compare in 2018. CMS reports scores on eight measures. Scores on the hospice CAHPS measures are generally high, but there is more variation and potential for improvement with the CAHPS measures than with the seven process measures (Table 12-11). CAHPS scores were highest on measures related to providing emotional support and treating patients with respect (roughly 90 percent of caregivers chose the most positive response in those areas). Scores were lowest in the areas of providing help for pain and symptoms, providing timely care, and caregiver training (average scores on these measures were 75 percent to 78 percent). In terms of an overall assessment of the hospice provider, about 81 percent of caregivers rated the hospice a 9 or 10 on

a 10-point scale, and about 85 percent would definitely recommend the hospice to others.

CMS has indicated that it is considering adopting additional measures, such as a measure related to live discharges and burdensome transitions. With quality measurement in general, it has been the Commission's principle that outcome measures are preferable to process measures. Although outcome measures for hospice are particularly challenging, the Commission believes outcome measures such as patient-reported pain and other symptom-management measures merit further exploration. Rate of live discharge is another measure that in some ways could be considered an outcome measure. The rate at which hospice providers discharge patients alive could signal quality issues. Hospice providers are expected to have some rate of live discharges because (1) some patients change their mind and revoke their hospice benefit, (2) their condition improves and they no longer meet the hospice eligibility criteria, or (3) they may change hospice providers

**TABLE
12-11****Scores on hospice CAHPS® quality measures, January 2016 to December 2017**

	National average	25th percentile	50th percentile	75th percentile
Providing emotional support	90	88	90	92
Caregiver rates hospice 9 or 10	81	77	81	85
Caregiver recommends hospice	85	80	85	90
Treating patients with respect	91	88	91	93
Help for pain and symptoms	75	71	75	79
Hospice team communication	80	77	81	84
Providing timely help	78	74	78	83
Caregiver training	75	71	76	80

Note: CAHPS® (Consumer Assessment of Healthcare Providers and Systems®). These scores reflect the share of respondents who reported the “top-box” —meaning the most positive survey response. The national average score is across providers. The percentile scores reflect provider-level performance data.

Source: MedPAC analysis of Hospice Compare CAHPS data from CMS for period January 2016–December 2017.

or move out of the hospice providers’ service area. However, analyses showing providers with substantially higher rates of live discharge than their peers signal a potential problem with quality of care or program integrity. An unusually high rate of live discharges could indicate that a hospice provider is not meeting the needs of patients and families or is admitting patients who do not meet the eligibility criteria.

Live discharges occur for patients with short and long stays. In our June 2013 report, we conducted an analysis of patients discharged alive in 2010 and followed them through the next year. Among patients discharged alive, 18 percent were discharged after a stay of 14 days or less, 22 percent after a 15-day to 60-day stay, 32 percent after a 61-day to 180-day stay, and 29 percent after a stay greater than 180 days (Medicare Payment Advisory Commission 2013). Patients discharged alive after a long hospice stay were more likely to be alive 180 days after discharge and to have lower average Medicare spending per day after hospice discharge than those discharged after a short hospice stay.

In 2017, the overall rate of live discharge (that is, live discharges as a share of all discharges) was 16.7 percent (Table 12-12, p. 330) and has changed minimally since 2015. This trend comes after a period of several

years (2013 to 2015) when the live-discharge rate was declining (from 18.4 percent to 16.7 percent). Hospice providers report the reason for live discharge on claims. Between 2016 and 2017, the mix of reasons reported for live discharge was relatively stable. The most common reasons reported were beneficiary was no longer terminally ill and beneficiary revocation (just under 40 percent for both in 2017). Other reasons—such as transferred to a different hospice, moved out of service area, and discharged for cause—are less common. However, over the last few years, the share of live discharges attributed to moving out of the service area has increased slightly.

Live-discharge rates vary by patient diagnosis. In 2017, the rate was higher for hospice beneficiaries with heart and circulatory conditions (19 percent), neurological conditions (20 percent), and chronic obstructive pulmonary disease (24 percent) than for those with cancer (12 percent) or other diagnoses (14 percent) (data not shown). The diagnoses that tend to have higher live-discharge rates are the same diagnoses that tend to have longer stays (lengths of stay by diagnosis are shown in Table 12-5, p. 321).

Some providers have unusually high live-discharge rates. In 2017, about 25 percent of providers had a live-discharge

**TABLE
12-12****Rates of hospice live discharge and reported reason for discharge, 2013–2017**

Category	2013	2015	2016	2017
Live discharges as a share of all discharges, by reason for live discharge				
All live discharges	18.4%	16.7%	16.9%	16.7%
No longer terminally ill	7.8	6.9	6.8	6.5
Beneficiary revocation	7.3	6.3	6.4	6.4
Transferred hospice providers	2.0	2.1	2.1	2.1
Moved out of service area	0.9	1.0	1.2	1.4
Discharged for cause	0.4	0.3	0.3	0.3
Providers' overall rate of live discharge as a share of all discharges, by percentile				
10th percentile	9.3%	8.4%	8.3%	8.3%
25th percentile	13.2	12.0	12.2	12.6
50th percentile	19.4	18.4	19.1	19.3
75th percentile	30.2	29.6	31.3	31.8
90th percentile	47.2	50.0	53.3	53.0

Note: Percentages may not sum to total due to rounding. "All discharges" includes patients discharged alive or deceased.

Source: MedPAC analysis of the 100 percent hospice claims standard analytical file, Medicare hospice cost reports, and Medicare Provider of Services file from CMS.

rate greater than approximately 32 percent, and 10 percent of providers had live-discharge rates of 53 percent or more (Table 12-12).¹⁸ Hospices with very high live-discharge rates are disproportionately for profit, small, and recent entrants to the Medicare program (entered in 2010 or after), and they have an above-average prevalence of exceeding the aggregate payment cap.

Our analysis focuses on the broadest measure of live discharges, including live discharges that are initiated by the hospice (because the beneficiary is no longer terminally ill or because the beneficiary is discharged for cause) and live discharges that are initiated by the beneficiary (because the beneficiary revokes his or her hospice enrollment, transfers hospice providers, or moves out of the area). Some stakeholders argue that live discharges initiated by the beneficiary—such as when the beneficiary revokes his or her hospice enrollment—should not be included in a live-discharge measure because they assert that these discharges reflect beneficiary preferences and are not in the hospice's control. Because beneficiaries

may choose to revoke hospice or transfer hospice providers for a variety of reasons, which in some cases may be related to the hospice provider's business practices or quality of care, we include revocations and transfers in our analysis. A CMS contractor, Abt Associates, found that rates of live discharges—both beneficiary revocations and discharges because beneficiaries are no longer terminally ill—increase as hospice providers approach or surpass the aggregate cap (Plotzke et al. 2015). The contractor report suggested this pattern may reflect hospice-encouraged revocations or inappropriate live discharges and merit further investigation.

Providers' access to capital: Hospices have good access to capital

Hospices in general are not as capital intensive as other provider types because they do not require extensive physical infrastructure (although some hospices have built their own inpatient units, which require significant capital). Overall, access to capital for hospices appears

adequate, given the continued entry of for-profit providers into the Medicare program.

In 2017, the number of for-profit providers grew by about 5 percent, indicating that capital is accessible to these providers. In addition, publicly traded hospice companies reported positive financial indicators in their fall 2018 filings, with favorable growth in admissions, net revenues, or both. According to financial analysts, the hospice sector garnered substantial investment interest from other health care companies and private equity investors in 2018. For example, in 2018, a major health insurer and private equity firms worked together to acquire two large hospice chains (Baxter 2018). In addition, a large publicly traded hospice company announced that it will be acquiring a large hospice chain (Kacik 2018). It is also notable that CMS's changes to the hospice payment system for 2016 have generally been viewed by financial analysts as modest and a sign of stability in the sector.

Among nonprofit freestanding providers, less is known about access to capital, which may be limited. Hospital-based and home health-based nonprofit hospices have access to capital through their parent providers, which currently appear to have adequate access to capital in both sectors.

A provider's total margin—which reflects how its total revenues compare with its total costs for all lines of business and all payers—can influence a provider's ability to obtain access to capital. Irregularities in how some hospices report data on their total revenues and total expenses on their cost reports prevent us from calculating a reliable estimate of total margins for hospices. Among hospice payers, however, Medicare accounts for more than 90 percent of hospice days, and hospices' Medicare margins are strong.

Medicare payments and providers' costs

As part of our assessment of payment adequacy, we examine the relationship between Medicare payments and providers' costs by considering whether current costs approximate what providers are expected to spend on the efficient delivery of high-quality care. Medicare margins illuminate the relationship between Medicare payments and providers' costs. Specifically, we examined margins through the 2016 cost reporting year, the latest period for which complete cost report and claims data are available.¹⁹ To understand the variation in margins across providers, we also examined the variation in costs per day across providers.

**TABLE
12-13**

Total hospice costs per day varied by type of provider, 2016

	Average total cost per day
All hospices	\$149
Freestanding	143
Home health based	159
Hospital based	210
For profit	133
Nonprofit	175
Above cap	136
Below cap	150
Urban	150
Rural	140

Note: Data reflect aggregate costs per day for all types of hospice care combined (routine home care, continuous home care, general inpatient care, and inpatient respite care). Data are not adjusted for differences in case mix or wages across hospices.

Source: MedPAC analysis of Medicare hospice cost reports and Medicare Provider of Services file from CMS.

Hospice costs

Hospice costs per day vary substantially by type of provider (Table 12-13), which is one reason for differences in hospice margins across provider types. In 2016, hospice costs per day across all hospice providers were about \$149 on average, a slight decrease from \$150 in the previous year.²⁰ Some of the decline in cost per day is accounted for by a shift in the mix of hospice days, with the share of days accounted for by routine home care (the lowest cost level of care) increasing in 2016.^{21,22} Freestanding hospices had lower costs per day than provider-based hospices (i.e., home health-based hospices and hospital-based hospices). For-profit, above-cap, and rural hospices also had lower average costs per day than their respective counterparts.²³

Many factors contribute to variation in hospice costs across providers. One factor is length of stay. Hospices with longer stays have lower costs per day on average. Freestanding and for-profit hospices have substantially longer stays than other hospices and as a result have lower costs per day (see Table 12-5, p. 321). Another factor that

**TABLE
12-14****Hospice costs and payment rates by level of care, 2016**

Category	2016 cost per day*				FY 2016 payment rate per day*	Percent of days 2016
	Average	25th percentile	50th percentile	75th percentile		
Routine home care	\$129	\$109	\$129	\$156	\$162	98.0%
General inpatient care	870	560	851	1,207	720	1.5
Inpatient respite care	442	212	312	511	167	0.3
Continuous home care* (dollars per hour)	50	17	50	88	39	0.3

Note: FY (fiscal year). Medicare payment rates and costs are rounded to the nearest dollar.

*Cost estimates and payment rates reflect dollars per day except for continuous home care, which is dollars per hour.

Source: MedPAC analysis of Medicare hospice cost reports, 100 percent hospice claims data, and Provider of Services file from CMS.

contributes to cost differences across providers relates to overhead costs. Included in the costs of provider-based hospices are overhead costs allocated from the parent provider, which contribute to provider-based hospices having higher costs than freestanding providers. The Commission believes payment policy should focus on the efficient delivery of services to Medicare beneficiaries. If freestanding hospices are able to provide high-quality care at a lower cost than provider-based hospices, payment rates should be set accordingly, and the higher costs of provider-based hospices should not be a reason for increasing Medicare payment rates.

The total cost per day estimates reflect the total cost per day averaged across the four levels of hospice care. CMS has recently restructured the hospice cost report to provide information on cost per day by level of care. With the restructured cost report, we are able to estimate how hospice costs per day differ by level of care. The new cost report became effective for freestanding providers beginning cost report year 2015 and for most provider-based hospices for the 2016 cost report year.

Table 12-14 presents estimates of hospice costs by level of care for freestanding and provider-based hospices in 2016. As expected, costs vary by level of care. The average cost per day is lowest for RHC, the typical level of hospice care, and is higher for the more specialized levels of care. RHC, which accounts for the vast majority of days in hospice, had an average and median cost per day of \$129,

while the Medicare RHC payment rate was substantially higher in 2016 at an average of \$162 per day (Table 12-14). Medicare's payment rate for the other less frequent levels of care appears to be lower than the average and median costs per day for freestanding providers. The cost per day for general inpatient care was \$870 on average and \$851 at the median, compared with a payment rate of \$720. The cost per day for inpatient respite care was \$442 on average and \$312 at the median, compared with a payment rate of about \$167.²⁴ The cost per hour for continuous home care was \$50 on average and at the median, compared with a payment rate of about \$39 per hour in 2016. These data suggest the payment rates by level of care are out of balance and may warrant changes in the future.²⁵

Hospice margins

The aggregate Medicare margin for hospice providers was 10.9 percent in 2016, reaching its highest level in more than 10 years.²⁶ Between 2015 and 2016, the aggregate hospice Medicare margin increased from 9.9 percent to 10.9 percent (Table 12-15). In 2016, Medicare margins varied widely across individual hospice providers: -6.8 percent at the 25th percentile, 10.6 percent at the 50th percentile, and 23.6 percent at the 75th percentile (data not shown). Our estimates of Medicare margins from 2010 to 2016 exclude overpayments to above-cap hospices and are calculated based on Medicare-allowable, reimbursable costs consistent with our approach in other Medicare sectors.²⁷

**TABLE
12-15****Hospice Medicare margins by selected characteristics, 2010–2016**

Category	Share of hospices 2016	2010	2011	2012	2013	2014	2015	2016
All	100%	7.4%	8.7%	10.0%	8.5%	8.2%	9.9%	10.9%
Freestanding	77	10.7	11.8	13.3	12.0	11.6	13.8	13.9
Home health based	11	3.4	6.1	5.5	2.5	3.7	3.3	6.2
Hospital based	11	-17.1	-17.0	-17.1	-17.4	-20.8	-23.8	-16.7
For profit (all)	67	12.3	14.7	15.4	14.7	14.6	16.5	16.8
Freestanding	60	13.4	15.9	16.5	15.7	15.4	17.8	17.6
Nonprofit (all)	29	2.9	2.3	3.6	0.9	-0.9	0.1	2.7
Freestanding	15	7.6	6.4	7.7	5.2	3.5	5.0	6.4
Urban	79	7.7	9.0	10.3	8.8	8.7	10.4	11.4
Rural	21	4.6	5.2	7.3	5.9	3.3	4.8	6.2
Patient volume (quintile)								
Lowest	20	-4.8	-3.8	-2.3	-0.4	-4.9	-5.3	-3.1
Second	20	4.1	2.7	5.8	5.9	2.0	4.3	6.2
Third	20	6.8	7.6	9.7	9.3	9.8	10.7	11.2
Fourth	20	7.0	9.3	11.1	10.6	9.9	13.0	13.1
Highest	20	8.2	9.6	10.5	8.2	8.4	9.9	11.1
Below cap	87.3	7.6	8.9	10.3	8.6	8.4	9.9	10.7
Above cap (excluding cap overpayments)	12.7	3.2	4.1	5.2	7.0	6.0	9.8	12.6
Above cap (including cap overpayments)	12.7	17.3	18.4	21.3	20.1	18.8	21.4	20.2

Note: Margins for all provider categories exclude overpayments to above-cap hospices, except where specifically indicated. Margins are calculated based on Medicare-allowable, reimbursable costs. The rural and urban definitions used in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census). Percentages may not sum to 100 due to omitted categories.

Source: MedPAC analysis of Medicare hospice cost reports, 100 percent hospice claims standard analytical file, and Medicare Provider of Services file from CMS.

We excluded nonreimbursable bereavement costs from our margin calculations. The statute requires that hospices offer bereavement services to family members of their deceased Medicare patients (Section 1861(dd)(2)(A) (i)); however, the statute prohibits Medicare payment for these services (Section 1814(i)(1)(A) of the Social Security Act). Hospices report the costs associated with bereavement services on the Medicare cost report in a nonreimbursable cost center. If we included bereavement costs from the cost report in our margin estimate, it would reduce the 2016 aggregate Medicare margin by at most 1.4 percentage points. The 1.4 percentage point figure likely overestimates the bereavement costs associated with Medicare hospice patients because, in addition to bereavement costs associated with hospice patients,

the estimate could include the costs of community bereavement services offered to the family and friends of decedents who were not enrolled in hospice. Also, some hospices fund bereavement services through donations. Hospice revenues from donations are not included in our margin calculations.

We also exclude nonreimbursable volunteer costs from our margin calculations. As discussed in our March 2012 report, the statute requires Medicare hospice providers to use some volunteers in the provision of hospice care. Costs associated with recruiting and training volunteers are generally included in our margin calculations because they are reported in reimbursable cost centers. The only

**TABLE
12-16****Hospice Medicare margins
by length of stay, 2016**

Hospice characteristic	Medicare margin
Average length of stay	
Lowest quintile	-5.4%
Second quintile	5.8
Third quintile	15.1
Fourth quintile	19.2
Highest quintile	16.0
Share of stays >180 days	
Lowest quintile	-5.4
Second quintile	5.8
Third quintile	14.8
Fourth quintile	20.0
Highest quintile	15.0

Note: Margins for all provider categories exclude overpayments to above-cap hospices. Margins are calculated based on Medicare-allowable, reimbursable costs.

Source: MedPAC analysis of Medicare hospice cost reports, Medicare Beneficiary Database, 100 percent hospice claims standard analytical file, and Medicare Provider of Services file from CMS.

volunteer costs that would be excluded from our margins are those associated with nonreimbursable cost centers. It is unknown what costs are included in the volunteer nonreimbursable cost center. If nonreimbursable volunteer costs were included in our margin calculation, it would reduce the aggregate Medicare margin by 0.3 percentage point.

Hospice margins vary by provider characteristics, such as type of hospice (freestanding or provider based), type of ownership (for profit or nonprofit), patient volume, and urban or rural location (Table 12-15, p. 333). In 2016, freestanding hospices had higher margins (13.9 percent) than home health–based or hospital-based hospices (6.2 percent and –16.7 percent, respectively) (Table 12-15). Provider-based hospices have lower margins than freestanding hospices for several reasons, including their shorter stays and the allocation of overhead costs from the parent provider to the provider-based hospice. The aggregate Medicare margin was considerably higher

for for-profit hospices (16.8 percent) than for nonprofit hospices (2.7 percent). The margin for freestanding nonprofit hospices (6.4 percent) was higher than the margin for nonprofit hospices overall. Generally, hospices' margins vary by the provider's volume; hospices with more patients have higher margins on average. Hospices in urban areas have a higher overall aggregate Medicare margin (11.4 percent) than those in rural areas (6.2 percent). The difference between rural and urban margins may partly reflect differences in volume.

In 2016, above-cap hospices had favorable margins even after the return of overpayments. Above-cap hospices would have had a margin of about 20.2 percent before the return of overpayments, but had a margin of 12.6 percent after the return of overpayments. Notably in 2016, above-cap hospices' margin after the return of overpayments was higher than below-cap hospices' margin (10.7 percent). In contrast, above-cap hospices' margin was generally lower than below-cap hospices' margin from 2010 to 2015. As shown in Table 12-8 (p. 325), the amount by which above-cap hospices have been exceeding the cap has been decreasing in recent years, which likely contributes to their increasing margin. This decline suggests that above-cap hospices are becoming better at bringing their utilization closer to the cap.

Hospice profitability is closely related to length of stay. Hospices with longer stays have higher margins. For example, in an analysis of hospice providers based on the share of their patients' stays exceeding 180 days, the average margin ranged from –5.4 percent for hospices in the lowest quintile to 20.0 percent for hospices in the second highest quintile (Table 12-16). Hospices in the quintile with the greatest share of their patients exceeding 180 days had a 15.0 percent average margin after the return of cap overpayments, but without the hospice aggregate cap, these providers' margins would have averaged 20 percent (latter figure not shown in table).

Hospices with a large share of patients in nursing facilities and ALFs also have higher margins than other hospices (Table 12-17). For example, in 2016, the 50 percent of hospices with the highest share of patients residing in nursing facilities had a margin of roughly 14 percent compared with an 8 percent margin for providers with fewer nursing facility patients. For the half of providers with the largest share of patients residing in ALFs, the margin was about 14 percent compared with a margin of approximately 6 percent for other hospices. Some of

the difference in margins among hospices with different concentrations of nursing facility and ALF patients was driven by differences in their patients’ diagnostic profile and length of stay. However, hospices may find caring for patients in facilities more profitable than caring for patients at home for reasons in addition to length of stay. As discussed in our June 2013 report, there may be efficiencies in treating hospice patients in a centralized location in terms of mileage costs and staff travel time and in facilities serving as referral sources for new patients. Nursing facilities may also be a more efficient setting for hospices to provide care because of the overlap in responsibilities between the hospice and the nursing facility. Analyses in our June 2013 report suggest that a reduction to the RHC payment rate for patients in nursing facilities may be warranted because of this overlap (Medicare Payment Advisory Commission 2013).

Our 2016 margin estimates reflect hospices’ financial performance in the first year of the new payment system, which began in January 2016.²⁸ CMS’s payment reforms—which move away from a single base rate for routine home care to a two-tiered base rate and provide additional payments for certain visits in the last seven days of life—were expected to modestly reduce the variation in profitability across hospices. In fact, between 2015 and 2016, the variation in profitability across providers by length of stay narrowed. When providers were grouped based on the share of their patients’ stays exceeding 180 days, there was a 29 percentage point spread in margin between the lowest length of stay quintile (–8.9 percent) and the second highest length of stay quintile (20.4 percent) in 2015. In 2016, the difference in margins narrowed slightly to about 25 percentage points (as shown in Table 12-16). As the Commission noted in its comment letter on the 2016 hospice proposed rule, the initial changes to the hospice payment system are projected to be modest and leave room for additional changes in future years based on further data and experience (Medicare Payment Advisory Commission 2015a). The Commission intends to examine the effects of the new payment system and consider the need for additional changes to better match the costs of care for both short and long hospice stays.

Projecting margins for 2019

To project the aggregate Medicare margin for 2019, we model the policy changes that went into effect between 2016 (the year of our most recent margin estimates) and

TABLE
12-17

Hospice Medicare margins by providers’ share of patients residing in facilities, 2016

Hospice characteristic	Medicare margin
Share of patients in nursing facilities	
Lowest half	8.1%
Highest half	13.5
Share of patients in assisted living facilities	
Lowest half	5.8
Highest half	13.7
Note: Margins for all provider categories exclude overpayments to above-cap hospices. Margins are calculated based on Medicare-allowable, reimbursable costs.	
Source: MedPAC analysis of Medicare hospice cost reports, Medicare Beneficiary Database, 100 percent hospice claims standard analytical file, and Medicare Provider of Services file from CMS.	

2019. The policies include updates of 2.1 percent in 2017, 1.0 percent in 2018, and 1.8 percent in 2019. The updates for 2017 and 2019 reflect the market basket update, productivity adjustment, and an additional legislated adjustment of –0.3 percentage point each year. The update for 2018 was statutorily specified at 1 percent in the Medicare Access and CHIP Reauthorization Act of 2015. We also assume a rate of cost growth that is consistent with historical rates of cost growth among hospice providers. Taking these factors into account, we project an aggregate Medicare margin for hospices of 10.1 percent in 2019. This margin projection excludes nonreimbursable costs associated with bereavement services and volunteers (which, if included, would reduce margins by at most 1.4 percentage points and 0.3 percentage point, respectively).

How should Medicare payments change in 2020?

The indicators of payment adequacy for hospices—beneficiary access to care, quality of care, provider access to capital, and Medicare payments relative to providers’ costs—are positive. The Commission has concluded that

aggregate payments are more than sufficient to cover providers' costs and that the payment rates should be reduced in 2020 by 2 percent.

RECOMMENDATION 12

For 2020, the Congress should reduce the fiscal year 2019 Medicare base payment rates for hospice providers by 2 percent.

RATIONALE 12

Our indicators of access to care are positive, and there are signs that the aggregate level of payment for hospice care exceeds the level needed to furnish high-quality care to beneficiaries. The number of providers, number of beneficiaries enrolled in hospice, days of hospice care, and average length of stay increased in 2017. The rate of marginal profit was 14 percent in 2016. As the number of for-profit providers increased by 5 percent, access to capital appears strong. The aggregate Medicare margin in 2016 reached 10.9 percent—the highest level in more than 10 years. The projected 2019 margin is 10.1 percent. Given the margin in the industry and our other positive payment adequacy indicators, we anticipate that the aggregate level of payments could be reduced by 2 percent in 2020 and would still be sufficient to cover providers' costs. This recommendation would bring payment rates closer to costs, would lead to savings for beneficiaries and taxpayers, and would be consistent with the Commission's principle that it is incumbent on Medicare to maintain financial pressure on providers to constrain costs.

Beyond the issue of the annual payment update, there are concerns that several aspects of the hospice payment system are out of balance. The payment rate for routine home care (which accounts for 98 percent of days) exceeds providers' costs substantially, while the payment rates for the other three less frequent levels of care appear to be below providers' costs. The continuation of certain longer term trends also suggests imbalances in the payment system. For more than a decade, we have observed the number of providers increasing, due almost entirely to the entry of for-profit providers. Concern has existed that long stays in hospice have been very profitable, and those profit opportunities have drawn some new actors into the industry with revenue-generating strategies. Patients with long stays in hospice account for more than half of Medicare's payments for hospice—over \$10 billion in 2017. The changes CMS made to the payment structure in 2016 have had only a modest effect, and providers with the most long-stay patients

continue to have high profit margins. It is also notable that hospices with a large share of patients in nursing facilities and ALFs have higher margins than other hospices. In addition, for the first time in 2016, above-cap hospices had a higher margin than below-cap hospices, even after the return of cap overpayments. In light of these issues, the Commission will consider approaches to rebalance the payment system in the future.

IMPLICATIONS 12

Spending

- Under current law, hospices are projected to receive an update in fiscal year 2020 equal to 2.8 percent (based on a projected market basket of 3.3 percent and a projected productivity adjustment of –0.5 percent). Our recommendation to reduce the payment rates by 2 percent would decrease federal program spending relative to the statutory update by between \$750 million and \$2 billion over one year and between \$5 billion and \$10 billion over five years.

Beneficiary and provider

- We do not expect this recommendation to have an adverse effect on beneficiaries' access to care. This recommendation is not expected to affect providers' willingness or ability to care for Medicare beneficiaries. ■

Endnotes

- 1 Under Section 1812(d)(2)(A) of the Social Security Act, beneficiaries who elect hospice agree to waive their right to have Medicare payment for services that are related to the treatment of the terminal condition or that are equivalent to hospice services when provided by an entity other than the beneficiary's hospice provider or attending physician. To the extent that certain aspects of conventional care for the terminal condition and related conditions are palliative, a beneficiary electing hospice would continue to have access to such palliative services under the hospice benefit in accord with the beneficiary's plan of care.
- 2 If a beneficiary does not have an attending physician, the beneficiary can initially elect hospice based on the certification of the hospice physician alone.
- 3 When first established under TEFRA, the Medicare hospice benefit limited coverage to 210 days of hospice care. The Medicare Catastrophic Coverage Repeal Act of 1989 and the Balanced Budget Act of 1997 eased this limit.
- 4 In 2000, 30 percent of hospice providers were for profit, 59 percent were nonprofit, and 11 percent were government owned. As of 2017, about 69 percent of hospices were for profit, 27 percent were nonprofit, and 4 percent were government owned.
- 5 If there is a break in hospice care that is more than 60 days, the day count resets to 1 when the patient re-enters hospice.
- 6 From 1983 to 1997, Medicare adjusted hospice payments with a 1983 wage index. In 1998, CMS began using the most current hospital wage index to adjust hospice payments and applied a budget-neutrality adjustment each year to make aggregate payments equivalent to what they would have been under the 1983 wage index. This adjustment increased Medicare payments to hospices by about 4 percent and was phased out over seven years between 2010 and 2016. Beginning 2017, there are no further reductions to the payment rates associated with this phase-out.
- 7 The 2019 cap year spans from October 1, 2018, to September 30, 2019. Payments for the cap year reflect the sum of payments to a provider for services furnished to all Medicare patients in that year. The calculation of the beneficiary count for the cap year is more complex, involving two alternative methodologies. For a detailed description of the two methodologies and when they are applicable, see our March 2012 report (Medicare Payment Advisory Commission 2012).
- 8 This 2019 cap is equivalent to an average length of stay of 173 days of routine home care for a hospice with a wage index of 1.
- 9 The Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT) changed the annual update factor applied to the hospice aggregate cap for cap years 2017 through 2025. Previously, the aggregate cap was updated annually based on the percentage increase in the medical care expenditure category of the consumer price index for all urban consumers. As a result of IMPACT, the aggregate cap will be updated annually by the same factor as the hospice payment rates (market basket net of productivity and other adjustments).
- 10 Our hospice analyses in this report that break out data for rural and urban beneficiaries or rural and urban providers are based on core-based statistical area definitions (which rely on the 2010 census) or are based on the 2013 urban influence codes.
- 11 The type of hospice reflects the type of cost report filed (a hospice files a freestanding hospice cost report or is included in the cost report of a hospital, home health agency, or skilled nursing facility). The type of cost report does not necessarily reflect where patients receive care. For example, all hospice types may serve some nursing facility patients.
- 12 The share of days accounted for by RHC increased slightly from 98.0 percent to 98.1 percent because the number of RHC days increased 5 percent, while the number of GIP and CHC days declined (2 percent and 10 percent, respectively). The number of IRC days also increased about 8 percent, but IRC is an infrequently used level of care, so it remained about 0.3 percent of days in 2017.
- 13 The terms *curative care* and *conventional care* are often used interchangeably to describe treatments intended to be disease modifying.
- 14 Hospice length of stay has grown between 2000 and 2017, particularly for patients with certain diagnoses. For example, between 2000 and 2017, average length of stay grew from 63 days to 149 days for beneficiaries with neurological conditions, from 46 days to 94 days for beneficiaries with heart and circulatory conditions, and from 69 days to 118 days for beneficiaries with chronic obstructive pulmonary disease. In contrast, average length of stay has been stable for patients with cancer (50 days in 2000 and 52 days in 2017).
- 15 The estimates of hospices over the cap are based on the Commission's analysis. While the estimates are intended to approximate those of the CMS claims processing contractors, differences in available data and methodology

have the potential to lead to different estimates. An additional difference between our estimates and those of the CMS contractors relates to the alternative cap methodology that CMS established in the hospice final rule for 2012 (Centers for Medicare & Medicaid Services 2011). Using that regulation, for cap years before 2012, hospices that challenged the cap methodology in court or made an administrative appeal had their cap payments calculated from the challenged year going forward using a new, alternative methodology. For cap years from 2012 onward, all hospices have their cap liability calculated using the alternative methodology unless they elect to remain with the original method. For estimation purposes, we assume that the CMS contractors used the alternative methodology for cap year 2012 onward. Estimates for cap years 2011 and earlier assumed that the original cap methodology was used.

- 16 Above-cap hospices are more likely to be for profit, be freestanding, and have smaller patient counts than below-cap hospices.
- 17 If we approximate marginal cost as total Medicare costs minus fixed building and equipment costs, then marginal profit can be calculated as follows: $\text{Marginal profit} = (\text{payments for Medicare services} - (\text{total Medicare costs} - \text{fixed building and equipment costs})) / \text{Medicare payments}$. This comparison is a lower bound on the marginal profit because we do not consider any potential labor costs that are fixed.
- 18 The live-discharge rates were calculated for providers regardless of size. If the live-discharge rate is used as a quality or program integrity measure, issues with random variation would dictate limiting the measure to providers with a specified minimum number of discharges. Nonetheless, it is important to include small providers in live-discharge measures because the aggregate live-discharge rate (based on combined data for similarly sized hospices) is higher for small hospice providers than large providers. In 2017, the aggregate live-discharge rate for providers with 30 or fewer discharges annually was about 42 percent compared with just under 16 percent for larger providers.
- 19 We present margins for 2016 because our margin estimates exclude cap overpayments to providers. To calculate this exclusion accurately, we need the next year's claims data (i.e., the 2016 cap overpayment calculation requires 2017 claims data).
- 20 The cost per day calculation reflects aggregate costs for all types of hospice care (routine home, continuous home, general inpatient, and inpatient respite care). "Days" reflects the total number of days for which the hospice is responsible for care of its patients, regardless of whether the patient

received a visit on a particular day. The cost per day estimates are not adjusted for differences in case mix or wages across hospices and are based on data for all patients, regardless of payer.

- 21 The share of days accounted for by routine home care (the lowest cost level of care) increased from 97.8 percent to 98.0 percent between 2015 and 2016.
- 22 Several other factors may have also contributed to the decline in total cost per day, such as the increase in average length of stay, the increase in the share of revenues accounted for by freestanding providers (which have lower costs than provider-based hospices), and the shift to the use of the new cost report for provider-based hospices.
- 23 The mix of days by level of care varies slightly by type of provider and ownership. Routine home care (RHC), the lowest cost level of care, accounted for about 98 percent of hospice days overall in 2016. By type of provider, the share of days accounted for by RHC was about 98 percent for freestanding and home health–based hospices and about 97 percent of days for hospital-based hospices. By ownership, the share of days accounted for by RHC was about 99 percent for for-profit hospices and 97 percent for nonprofit hospices.
- 24 Wide variation in cost per day exists in the freestanding hospice cost reports for inpatient respite care, including the presence of some high-end outliers that cause a significant divergence between the average and the median. To address the presence of outliers, we explored excluding observations below the 10th percentile and above the 90th percentile. With this approach, the average cost per day was \$370 for inpatient respite care in 2016.
- 25 CMS has implemented some level 1 edits to the hospice cost reports that have become effective for cost report year ending on or after December 31, 2017 (with an exemption for cost reports created before June 1, 2018). These level 1 edits reject electronically filed cost reports that lack information in certain cost report fields. Some provider associations point out that the 2016 estimates of cost by level of care included in this report were not subject to the new level 1 edits. We note that in the fiscal year 2019 hospice proposed rule, CMS simulated the effect of three different types of edits to the cost report data, including a set of level 1 edits. CMS's analysis found that estimated cost by level of care was relatively consistent across three editing approaches. For example, the variance in cost estimates was approximately 2 percent for RHC, 4 percent for CHC, 6 percent for GIP, and 13 percent for IRC. All three models suggested that providers' costs are below the payment rate for RHC and above the payment rates for the other three levels of care.

- 26 The aggregate Medicare margin is calculated as follows:
((sum of total payments to all providers) – (sum of total costs of all providers)) / (sum of total payments to all providers).
Estimates of total Medicare costs come from providers' cost reports. Estimates of Medicare payments and cap overpayments are based on Medicare claims data.
- 27 Hospices that exceed the Medicare aggregate cap are required to repay the excess to Medicare. We do not consider the overpayments to be part of hospice revenues in our margin calculation.
- 28 Because some hospices' cost report years begin before January, the 2016 cost report year includes some payments under the old payment system for a portion of the year for some providers. We estimate that across all providers in our margin estimates, about 90 percent of payments were made under the new payment system.

References

- Barnato, A. E., D. L. Anthony, J. Skinner, et al. 2009. Racial and ethnic differences in preferences for end-of-life treatment. *Journal of General Internal Medicine* 24, no. 6 (June): 695–701.
- Baxter, A. 2018. Humana completes acquisitions of Kindred, Curo. *Health Exec*, July 12. <https://www.healthexec.com/topics/healthcare-economics/humana-acquires-kindred-and-curo>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2011. Medicare program; hospice wage index for fiscal year 2012. Notice of CMS ruling. *Federal Register* 76, no. 89 (May 9): 26731–26735.
- Cohen, L. L. 2008. Racial/ethnic disparities in hospice care: A systematic review. *Journal of Palliative Medicine* 11, no. 5 (June): 763–768.
- Crawley, L., R. Payne, J. Bolden, et al. 2000. Palliative and end-of-life care in the African American community. *Journal of the American Medical Association* 284, no. 19 (November 15): 2518–2521.
- Direct Research. 2015. *Spending in the last year of life and the impact of hospice on Medicare outlays (updated August 2015)*. Report prepared by Direct Research for the Medicare Payment Advisory Commission. Washington, DC: Medicare Payment Advisory Commission.
- Gilstrap, L. G., H. A. Huskamp, D. G. Stevenson, et al. 2018. Changes in end-of-life care in the Medicare Shared Savings Program. *Health Affairs* 37, no. 10 (October): 1693–1700.
- Government Accountability Office. 2004. *Medicare hospice care: Modifications to payment methodology may be warranted*. GAO–05–42. Washington, DC: GAO.
- Hoyer, T. 2007. The future of hospice. *Caring*, November 6–8.
- Kacik, A. 2018. Amedisys aims to acquire Compassionate Care Hospice for \$340 million. *Modern Healthcare*, October 10.
- Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015a. Comment letter to CMS on the hospice wage index and payment rate update and hospice quality report requirements proposed rule, June 2.
- Medicare Payment Advisory Commission. 2015b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2010. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2009. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2008. *Report to the Congress: Reforming the delivery system*. Washington, DC: MedPAC.
- Miescier, L. 2018. *Evaluation of the Medicare Care Choices Model: Annual report #1*. Report prepared by staff from Abt Associates for the Centers for Medicare & Medicaid Services. Rockville, MD: Abt Associates. <https://innovation.cms.gov/Files/reports/mccm-firstannrpt.pdf>.
- Plotzke, M., T. J. Christian, E. Axelrod, et al. 2015. *Medicare hospice payment reform: Analysis of how the Medicare hospice benefit is used*. Report prepared for the Centers for Medicare & Medicaid Services. Cambridge, MA: Abt Associates.
- Teno, J. M., P. Gozalo, A. N. Trivedi, et al. 2018. Site of death, place of care, and health care transitions among US Medicare beneficiaries, 2000–2015. *Journal of the American Medical Association* 320, no. 3 (July 17): 264–271.

CHAPTER

13

The Medicare Advantage program: Status report

The Medicare Advantage program: Status report

Chapter summary

Each year, the Commission provides a status report on the Medicare Advantage (MA) program. In 2018, the MA program included about 3,100 plan options offered by 185 organizations, enrolled over 20 million beneficiaries (33 percent of all Medicare beneficiaries), and paid MA plans about \$233 billion (not including Part D drug plan payments). To monitor program performance, we examine MA enrollment trends, plan availability for the coming year, and payments for MA plan enrollees relative to spending for fee-for-service (FFS) Medicare beneficiaries. We also provide updates on risk adjustment, risk coding practices, and current quality indicators in MA.

The MA program gives Medicare beneficiaries the option of receiving benefits from private plans rather than from the traditional FFS Medicare program. The Commission strongly supports the inclusion of private plans in the Medicare program; beneficiaries should be able to choose between the traditional FFS Medicare program and the extra benefits and alternative delivery systems that private plans often provide. Because Medicare pays private plans a risk-adjusted per person predetermined rate rather than a per service rate, plans have greater incentives than FFS providers to innovate and use care-management techniques to deliver more efficient care.

The Commission has emphasized the importance of imposing fiscal pressure on all providers of care to improve efficiency and reduce Medicare

In this chapter

- Trends in enrollment, plan availability, and payments
- Medicare Advantage risk adjustment and coding intensity
- Quality in Medicare Advantage is difficult to evaluate
- Future direction of MA payment policy

program costs and beneficiary premiums. For MA, the Commission previously recommended that payments be brought down from prior levels, which were generally higher than FFS, and be set so that the payment system is neutral and does not favor either MA or the traditional FFS program. Legislation has reduced the inequity in Medicare spending between MA and FFS nationally, even as plans have received increased payments because of higher risk coding and quality bonus rules. As a result, over the past few years, plan bids and payments have come down in relation to FFS spending while MA enrollment continues to grow. The pressure of lower benchmarks has led to improved efficiencies and more competitive bids that enable MA plans to continue to increase enrollment by offering benefits that beneficiaries find attractive.

Enrollment—Between November 2017 and November 2018, enrollment in MA plans grew by 8 percent—or 1.6 million enrollees—to 20.5 million enrollees. About 33 percent of all Medicare beneficiaries were enrolled in MA plans in 2018, up from 32 percent in 2017. Among plan types, HMOs continued to enroll the most beneficiaries (13.1 million), with 21 percent of all Medicare beneficiaries in HMOs in 2018. During this period, enrollment in local preferred provider organizations (PPOs) grew by 16 percent, regional PPO enrollment decreased by 1 percent, and private fee-for-service (PFFS) enrollment decreased by 21 percent. Special needs plan enrollment grew by 13 percent, and employer group enrollment grew by 12 percent.

Plan availability—Access to MA plans remains high in 2019, with most Medicare beneficiaries having access to many plans. Almost all beneficiaries have had access to some type of MA plan since 2006, and HMOs and local PPOs have become more widely available in the past few years. Nearly all Medicare beneficiaries (97 percent) have an HMO or local PPO plan operating in their county of residence. Regional PPOs are available to 74 percent of beneficiaries. Thirty-eight percent of beneficiaries have access to PFFS plans. Overall, 99 percent of Medicare beneficiaries have access to an MA plan. The average beneficiary in 2019 has 23 available plans, an increase from 20 plans in 2018.

An analysis of the MA program's market structure shows that, compared with 2007, MA enrollment in 2018 is more heavily concentrated. The top 10 MA organizations (ranked by enrollment) had 74 percent of total enrollment in 2018, compared with 61 percent in 2007. Enrollment is more concentrated in nonmetropolitan areas, where the top two companies have 55 percent of all enrollment, compared with 42 percent in metropolitan areas.

Plan payments—Using the 2019 plan bid data, before adjusting fully for coding intensity, we estimate that 2019 MA benchmarks (including quality bonuses), bids, and payments will average 107 percent, 89 percent, and 100 percent of FFS spending, respectively. Adjusting for uncorrected coding intensity differences would increase the ratio of MA payments to FFS spending by 1 percent to 2 percent; hence, MA payments would average about 101 percent of FFS spending. Lower benchmarks have led to more competitive bids from plans: Bids have dropped from roughly 100 percent of FFS before the Patient Protection and Affordable Care Act of 2010 (PPACA) to 89 percent of FFS in 2019. For 2019, about 76 percent of plans, accounting for 83 percent of projected MA enrollment, have bids below FFS spending.

On average, quality bonuses in 2019 will add 4 percent to the average plan's base benchmark and will add 2.4 percent to plan payments. We project the base benchmarks (that is, excluding the quality bonuses) will average 103 percent of FFS spending, and the payments, excluding quality bonuses (and coding differences), will average 98 percent of FFS spending in 2019.

Risk adjustment and coding intensity—Medicare payments to MA plans are enrollee specific, based on a plan's payment rate and an enrollee's risk score. Risk scores account for differences in expected medical expenditures and are based in part on diagnoses that providers code. Most claims in FFS Medicare are paid using procedure codes, which offer little incentive for providers to record more diagnosis codes than necessary to justify ordering a procedure. In contrast, MA plans have had a financial incentive since the current risk adjustment model was introduced to ensure that their providers record all possible diagnoses: Higher enrollee risk scores result in higher payments to the plan.

Our updated analysis for 2017 shows that higher diagnosis coding intensity resulted in MA risk scores that were 7 percent higher than scores for similar FFS beneficiaries. This estimate is lower than the prior year due to the full implementation of a new risk model and an increase in FFS risk score growth, matching the growth rate of MA risk scores. By law, CMS makes a minimum across-the-board adjustment to MA risk scores to make them more consistent with FFS coding. In 2017, the adjustment reduced MA risk scores by 5.66 percent, leaving MA risk scores and payments about 1 percent to 2 percent higher than they would have been if MA enrollees had been treated in FFS Medicare. The 1 percent to 2 percent estimate is lower than recent years. The adjustment for 2019 will be 5.9 percent. The Commission previously recommended that CMS change the way diagnoses are collected for use in risk adjustment and calculate a new

coding adjustment that improves equity across plans and eliminates the impact of differences in MA and FFS coding intensity.

Quality in MA—This chapter summarizes our concerns with the MA star rating system and suggests a number of strategies to improve it. A major concern is that the star ratings are determined at the contract level, which may cover very wide areas—including noncontiguous states—and so may not be a reliable indicator of the quality of care provided in an individual’s local area and may not sufficiently capture variation in quality among subgroups of the Medicare population (such as low-income beneficiaries and beneficiaries with disabilities). To address this issue, the Commission has a standing recommendation that quality be reported at the local geographic level. We also suggest that CMS move away from quality measures that are based on medical record sampling and instead use claims-based measures that have their analogue in MA encounter data. These measures, along with patient experience measures, should be the primary source for determining bonus payments.

We also have concerns about the “tournament” design of the star rating system, in which contracts’ star ratings are determined relative to one another. Under this design, new thresholds (or “cut points”) for each of the star levels are set each year, so plans do not know in advance what level of performance is needed to achieve specific star ratings, and contracts can be rewarded with bonus payments even if overall quality in MA has declined. Further, under the current design, star ratings are sensitive to the influence of outliers (either high-performing or low-performing contracts) and the change in the composition of contracts from one year to the next, potentially resulting in large changes in the star thresholds from year to year. This concern can be addressed by discounting outliers in determining star thresholds and, as CMS has recently proposed, by establishing upper and lower bounds on the changes in the thresholds from year to year. However, the Commission generally prefers prospective models for measuring quality, in which performance targets are clear, absolute, and known in advance. CMS should also consider distributing quality-based bonus payments on a continuous scale (i.e., without performance “cliffs” or “plateaus”), as the Commission has recommended for the hospital value incentive program, so that plans with similar performance will receive similar financial rewards.

Ideally, an evaluation of quality in MA would be based in part on a comparison with the quality of care in FFS, including accountable care organizations. We would expect quality in MA to be better than in FFS because MA plans have certain tools at their disposal that are not available in FFS (such as selective contracting, care coordination, and utilization management). Some research suggests that MA does

have better quality, but a definitive finding is not possible with currently available data. Except for certain measures collected through surveys of MA enrollees and FFS beneficiaries, which show little difference between MA and FFS in patient experience measures of access to care and satisfaction with the care, the data needed to compare MA with FFS are lacking. In MA, some data are collected by means of medical record sampling (not available in FFS), while other MA data are known to be incomplete (such as encounter data on post-acute services). In addition, for measures that need to be risk adjusted, differences in coding between MA and FFS need to be taken into account.

Even within the MA sector, there is not an entirely satisfactory way of evaluating quality—either by using overall quality star ratings for MA contracts or by looking at individual measure results. MA plans receive quality bonuses if they have a star rating of at least 4 stars on a 5-star scale. An issue of concern to the Commission has been the practice of plan sponsors consolidating contracts so that nonbonus contracts acquire the star rating of the “surviving” contract. At the end of 2018, about 550,000 beneficiaries were moved from nonbonus plans to bonus-level plans through contract consolidations, and the sponsors will receive unwarranted bonus payments for those enrollees. This concern has been partly addressed through recent legislation, which provides that, starting at the end of 2019, the star rating for consolidated contracts will be based on an enrollment-weighted average of the results of each contract that is being consolidated. Previously, a company could choose which contract would have its star rating apply to all consolidated contracts. Under the new policy, the ability to receive unwarranted bonuses will be curtailed, but there will still be opportunities for companies to consolidate and achieve unwarranted bonus payments under the averaging method.

As we have noted in the past, the wave of contract consolidations has resulted in inaccurate reporting of Medicare Plan Finder star ratings that beneficiaries use to choose among plans in their area. The consolidations have also limited our ability to report quality results in MA in our usual manner of comparing year-over-year contract-level results. An alternative way of looking at changes in quality over time—by using weighted average results across all plans— indicates that quality results are mixed, with most measures unchanged over the last year. Two measures used in the star ratings improved, but seven measures (none of which is used in star ratings) declined, including six measures of mental health care and treatment of drug or alcohol dependency. Our examination of a subset of quality measures over a four-year period also showed that most measures remained stable, with some measures improving and only one measure declining. We reiterate, however, that because many measures are based on medical record sampling at the contract level

or surveys conducted at the MA contract level, we do not believe the program or its beneficiaries have fully reliable information on which to evaluate MA quality. We believe that encounter data, when they are accurate and complete, will be a valuable source of information for evaluating quality in MA and comparing MA and FFS quality.

Future direction of MA payment policy—To summarize, many indicators of the performance of the MA program are positive, as evidenced by the growth in enrollment, increased plan offerings, and extra benefits that are at a historically high level. Although the payment reforms of PPACA reduced MA payments, the fiscal pressure on MA has improved the efficiency of the MA program. On average across the nation, MA payments are nearly at parity with FFS expenditure levels, consistent with the Commission’s support of equity between the two programs. In setting payment policy in the FFS sector, the Commission consistently applies a level of fiscal pressure on providers to promote the efficient provision of care while maintaining beneficiary access to good quality care. FFS payment policies of that nature have an effect on MA payments because MA benchmarks are based on FFS expenditure levels, meaning that currently all savings to the program that come from MA must be generated through FFS spending reductions. However, if there were additional fiscal pressure on MA plan benchmarks, plan innovations could contribute more to Medicare savings. In the future, the principle of parity can encompass the concept of achieving an equal level of cost and quality pressure between MA and FFS. ■

Background

The Medicare Advantage (MA) program allows Medicare beneficiaries (who are enrolled in both Part A and Part B) to receive benefits from private plans rather than from the traditional fee-for-service (FFS) program. In 2018, the MA program included about 3,100 plan options offered by 185 organizations, enrolled over 20 million beneficiaries (33 percent of all Medicare beneficiaries), and paid MA plans about \$233 billion (not including Part D drug plan payments). The Commission supports including private plans in the Medicare program because they allow beneficiaries to choose between FFS Medicare and alternative delivery systems that private plans can provide. Plans often have flexibility in payment methods, including the ability to negotiate with individual providers, care-management techniques that fill potential gaps in care delivery (e.g., programs focused on preventing avoidable hospital readmissions), and robust information systems that can potentially provide timely feedback to providers. Plans also can reward beneficiaries for seeking care from more efficient providers and give beneficiaries more predictable cost sharing; one trade-off is that plans typically restrict the choice of providers.

By contrast, traditional FFS Medicare has lower administrative costs and offers beneficiaries an unconstrained choice of health care providers, but it lacks incentives to coordinate care and is limited in its ability to modify care delivery. Because private plans and traditional FFS Medicare have structural aspects that appeal to different segments of the Medicare population, we favor providing a financially neutral choice between private MA plans and traditional FFS Medicare. Medicare's payment systems, as well as monitoring and enforcement efforts, should not unduly favor one component of the program over the other.

Efficient MA plans may be able to capitalize on their administrative flexibility to provide better value to beneficiaries who enroll in those plans. However, some of the extra benefits that MA plans provide their enrollees result from payments that would have been lower under FFS Medicare for similar beneficiaries, in some parts of the country. Thus, some of those benefits are financed by higher government spending and higher beneficiary Part B premiums (including the premiums for enrollees in traditional FFS Medicare) at a time when Medicare and its beneficiaries are under increasing financial stress. To encourage efficiency and innovation, MA

plans need to face some degree of financial pressure and effective monitoring and regulation, like the Commission recommends for providers in the traditional FFS program. One method of achieving financial neutrality is to link private plans' payments more closely to FFS Medicare costs within the same market. Alternatively, neutrality can be achieved by establishing a government contribution that is equally available for enrollment in either FFS Medicare or an MA plan. The Commission will continue to monitor plan payments and performance and begin to develop policies to further improve the efficiencies of MA.

Each year, the Commission provides a status report on the MA program. To monitor program performance, we examine MA enrollment trends, plan availability for the coming year, and payments for MA plan enrollees relative to spending for FFS Medicare beneficiaries. We also provide updates on risk adjustment, risk coding practices, and current quality indicators in MA.

Trends in enrollment, plan availability, and payments

In contrast to traditional FFS Medicare, beneficiaries in MA enroll in private health plans. Medicare pays plans a fixed rate per enrollee rather than FFS Medicare's fixed rate per service.

Types of MA plans

Our analysis of the MA program uses the most recent data available and reports results by plan type. The analysis does not cover non-MA private plan options that may be available to some beneficiaries, such as cost plans. The MA plan types are:

- ***HMOs and local preferred provider organizations (PPOs)***—These plans have provider networks and, if they choose, can use tools such as selective contracting and utilization management to coordinate and manage care and control service use. They can choose individual counties to serve and can vary their premiums and benefits across counties. These two plan types are classified as coordinated care plans (CCPs).
- ***Regional PPOs***—These plans are required to offer a uniform benefit package and premium across CMS-

**TABLE
13-1****MA plan enrollment continued to grow faster
than total Medicare beneficiary growth in 2018**

	MA enrollment (in millions)		Percent change in enrollment	2018 MA enrollment as a share of total Medicare
	November 2017	November 2018		
Total	18.9	20.5	8%	33%
Plan type				
CCP	18.7	20.3	9	32
HMO	12.2	13.1	7	21
Local PPO	5.1	5.9	16	9
Regional PPO	1.4	1.4	-1	2
PFFS	0.2	0.1	-21	<1
Restricted availability plans included in totals above				
SNPs*	2.5	2.8	13	4
Employer group*	3.7	4.2	12	7
Urban/rural				Share of Medicare population in MA
Urban	16.3	17.9	10	35
Rural	2.5	2.5	3	23

Note: MA (Medicare Advantage), CCP (coordinated care plan), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service), SNP (special needs plan). CCPs include HMO, local PPO, and regional PPO plans. Rural areas include counties designated as micropolitan counties and counties that are neither metropolitan nor micropolitan as defined by the Office of Management and Budget. Urban areas include metropolitan counties. The sum of column components may not equal the stated total due to rounding.

*SNPs and employer group plans have restricted availability. Their enrollment is included in the statistics by plan type and location. We present them separately to provide a more complete picture of the MA program.

Source: MedPAC analysis of CMS enrollment files.

designated regions made up of one or more states. Regional PPOs have more flexible provider network requirements than local PPOs. Regional PPOs are also classified as CCPs.

- **Private FFS (PFFS) plans**—These plans may or may not use provider networks, depending on where they operate. The Medicare Improvements for Patients and Providers Act of 2008 mandated that, in areas with two or more network MA plans, PFFS plans have provider networks. Therefore, PFFS plans have to either locate in areas with fewer than two network plans or operate as network-based PFFS plans. The Congress anticipated that the legislation would reduce the availability of and enrollment in these plans that did not manage care as efficiently as their HMO and PPO competitors.

- **Medicare Medical Savings Account (MSA) plans**—MSA plans are a combination of a high-deductible plan and a medical savings account. The plan is paid the full MA benchmark and places a deposit into the member's account that the member can use to help meet the plan deductible on Medicare services. While these plans were introduced in 2007, they were never broadly available. In 2018, they were available in only a couple of states, and total enrollment was under 7,000 beneficiaries. New plans are being introduced for 2019 that will be available in a total of 19 states. However, because enrollment has been limited, beneficiaries dually eligible for Medicare and Medicaid are not eligible to enroll in MSA plans, and because the plans do not bid, we are not including them in our analyses.

Two additional plan classifications cut across plan types: special needs plans (SNPs) and employer group plans. SNPs offer benefit packages tailored to specific populations (those beneficiaries who are dually eligible for Medicare and Medicaid, are institutionalized, or have certain chronic conditions). SNPs must be CCPs. Employer group plans are available only to Medicare beneficiaries who are members of employer or union groups that contract with those plans. SNPs are included in our plan data, with the exception of plan availability figures because these plans are not available to all beneficiaries. (See the Commission's March 2013 report to the Congress, available at <http://www.medpac.gov>, for more detailed information on SNPs.) As we recommended in an earlier report, employer plans no longer submit bids (since 2016), so we have only enrollment data for them. Therefore, they are not included in our access and payment analyses. (See the Commission's March 2015 report to the Congress for more detailed information on employer plans.)

How Medicare pays MA plans

Plan payment rates are determined by the MA plan bid—which represents the dollar amount that the plan estimates will cover the Part A and Part B benefit package for a beneficiary of average health status—and the benchmark for the county in which the beneficiary resides, which is the maximum amount of Medicare payment set by law for an MA plan to provide Part A and Part B benefits. (Medicare also pays plans for providing the Part D drug benefit, but Medicare's Part D payments are determined through the Part D bidding process, and not all plans include the Part D benefit.) Plans with higher quality ratings are rewarded with a higher benchmark. The benchmark that is compared with an individual plan's bid is a plan-specific risk-adjusted average, weighted by the plan's projected enrollment from counties in its service area. If a plan's bid is above the benchmark, its MA payment rate is equal to the benchmark and enrollees have to pay a premium (in addition to the usual Part B premium) equal to the difference. If a plan's bid is below the benchmark, its payment rate is its bid plus a share (between 50 percent and 70 percent, depending on a plan's quality ratings) of the difference between the plan's bid and the benchmark; the beneficiary pays no additional premium to the plan for Part A and Part B benefits (but continues to be responsible for payment of the Medicare Part B premium and may pay premiums to the plan for additional

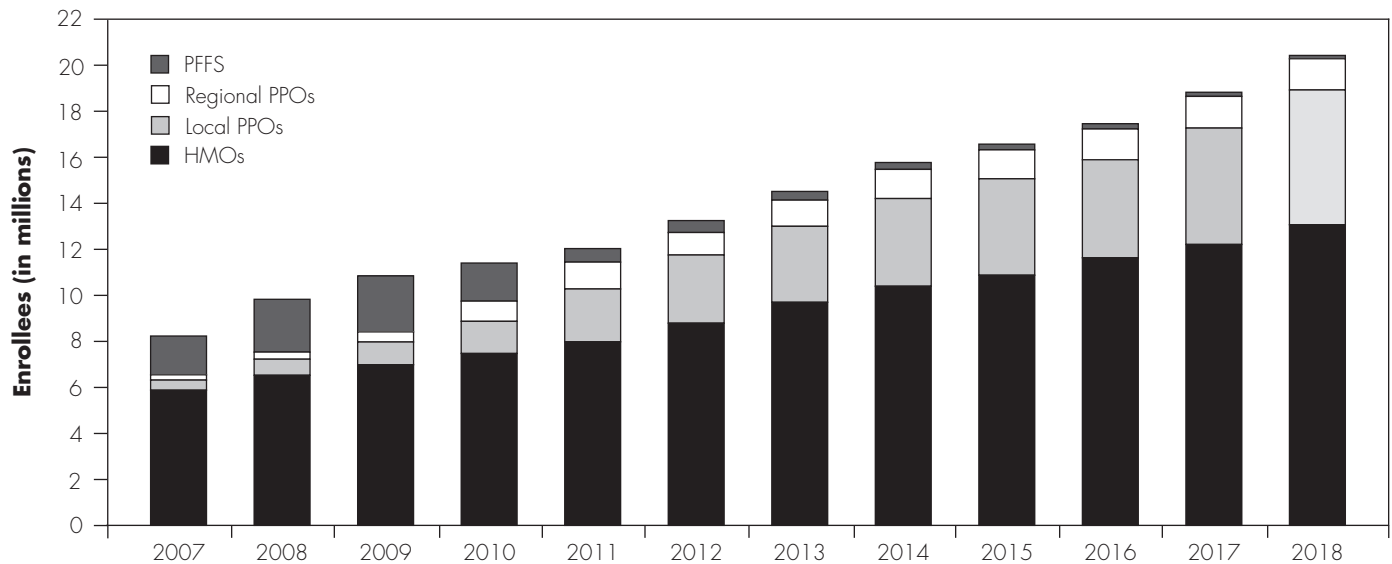
benefits). The added payment based on the difference between the bid and the benchmark is referred to as the "rebate." Plans must use the rebate to provide additional benefits to enrollees in the form of lower cost sharing, lower premiums, or supplemental benefits. Plans can also devote some of the rebate to administration costs and margins. Plans may also choose to include additional supplemental benefits in their packages and charge premiums to cover those additional benefits. (A more detailed description of the MA program payment system can be found at http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_18_ma_final_sec.pdf?sfvrsn=0.)

MA plan enrollment continued to grow faster than total Medicare beneficiary growth in 2018

Between November 2017 and November 2018, enrollment in MA plans grew by 8 percent—or 1.6 million enrollees—to 20.5 million enrollees (compared with 5 percent growth in the same period for the total Medicare population, and about 3 percent growth in FFS enrollment). During this period, MA enrollment rose from 32 percent to 33 percent of all Medicare beneficiaries (Table 13-1). The Commission's previous work suggests that, although many beneficiaries enroll in MA immediately upon becoming eligible, most MA enrollees initially enroll in FFS Medicare and subsequently move to MA. For more on enrollment patterns, see our March 2015 report (Medicare Payment Advisory Commission 2015).

Among plan types, although enrollment grew more slowly in HMOs (7 percent) than in local PPOs (16 percent), HMOs continued to enroll the most beneficiaries (13.1 million) in 2018, with 21 percent of all Medicare beneficiaries in HMOs. Between 2017 and 2018, enrollment in regional PPOs stayed about level. At the same time, PFFS enrollment dropped by 21 percent as more efficient HMOs and PPOs have captured some PFFS enrollment (Table 13-1). In 2018, SNP enrollment grew by 13 percent, and employer group enrollment grew by 12 percent.

Enrollment patterns differ in urban and rural areas. Over a third of urban beneficiaries are enrolled in MA compared with less than a quarter of beneficiaries residing in rural counties. In 2018, about 35 percent of rural MA enrollees were in HMO plans compared with about 70 percent of urban enrollees (not shown in Table 13-1). By contrast, 3 percent of rural enrollees were in PFFS plans compared with less than 1 percent of urban enrollees.

**FIGURE
13-1****Medicare Advantage enrollment, 2007–2018**

Note: PFFS (private fee-for-service), PPO (preferred provider organization).

Source: MedPAC analysis of CMS enrollment files.

The share of Medicare beneficiaries enrolled in MA plans in 2018 varied widely by geography. In some metropolitan areas, less than 1 percent of Medicare beneficiaries were enrolled in MA plans. For example, in Anchorage, AK, where only employer group plans are available, 1 percent of beneficiaries were enrolled in MA. In other areas (Miami, FL; Pittsburgh, PA; Buffalo and Rochester, NY; and several areas in Puerto Rico), MA enrollment was 60 percent or more.

MA enrollment growth in 2018 continued a trend that started in 2003. Since 2003, overall enrollment has more than tripled (Figure 13-1, which begins with 2007). Trends vary by plan type. HMOs have grown steadily each year since 2003, but growth in other plan types has been more variable.

Plan availability for 2019

Every year, we assess plan availability and projected enrollment for the coming year based on the bid data that plans submit to CMS. We find that access to MA plans remains high in 2019, with most Medicare beneficiaries having access to many plans. Some measures

of availability have improved for 2019. While almost all beneficiaries have had access to some type of MA plan since 2006, local CCPs have become more widely available in the past few years (Table 13-2). In 2019, 97 percent of Medicare beneficiaries have an HMO or local PPO plan (local CCP) operating in their county of residence, up from 96 percent in 2018. Regional PPOs are available to 74 percent of beneficiaries in 2019, unchanged from 2018. Access to PFFS plans in 2018 is lower, available to 38 percent of beneficiaries, down from 41 percent in 2018. Overall, 99 percent of Medicare beneficiaries have access to an MA plan, and 98 percent have access to a CCP (total CCP data not shown in Table 13-2), unchanged from 2018.

The availability of SNPs has changed slightly and varies by the type of special needs population served. In 2019, 89 percent of beneficiaries reside in areas where SNPs serve beneficiaries who are dually eligible for Medicare and Medicaid (up from 86 percent in 2018), 47 percent live where SNPs serve beneficiaries with chronic conditions (the same as in 2018), and 63 percent live where SNPs serve institutionalized beneficiaries (up from 56 percent

**TABLE
13-2****Access to Medicare Advantage plans remains high****Share of Medicare beneficiaries with access to at least one MA plan, by type**

Type of plan	2013	2014	2015	2016	2017	2018	2019
Any MA plan	100%	100%	99%	99%	99%	99%	99%
Local CCP	95	95	95	96	95	96	97
Regional PPO	71	71	70	73	74	74	74
PFFS	59	53	47	47	45	41	38
Special needs plans							
Dual eligible	82	82	82	83	86	86	89
Chronic condition	55	51	55	54	44	47	47
Institutional	46	47	47	50	52	56	63
Zero-premium plan with drug coverage	86	84	78	81	81	84	90
Average number of choices							
County weighted	12	10	9	9	10	10	13
Beneficiary weighted	19	18	17	18	18	20	23
Average monthly rebate for nonemployer, non-SNP plans	\$81	\$75	\$76	\$81	\$89	\$95	\$107

Note: MA (Medicare Advantage), CCP (coordinated care plan), PPO (preferred provider organization), PFFS (private fee-for-service), SNP (special needs plan). "Local CCPs" includes HMO and local PPO plans. These figures exclude employer-only plans. Special needs plans are included in the three special needs plan rows but excluded from all other rows. A zero-premium plan with drug coverage includes Part D coverage and has no premium beyond the Part B premium. "County weighted" means that each county is weighted the same and the measure is the average number of choices per county. "Beneficiary weighted" means that each county is weighted by the number of beneficiaries in the county. The plan rebate is the per beneficiary per month amount that the plan is offering as premium-free extra benefits.

Source: MedPAC analysis of CMS bid data and population reports.

in 2018). Overall, 93 percent of beneficiaries reside in counties served by at least one type of SNP (data not shown).

In 2019, 90 percent of Medicare beneficiaries have access to at least one MA plan that includes Part D drug coverage and charges no premium (beyond the Medicare Part B premium), up from 84 percent in 2018 (Table 13-2). (About 55 percent of nonemployer, non-SNP MA enrollment is projected to be in these zero-premium plans.) Also in 2019, 63 percent of beneficiaries have access to plans that offer some reduction in the Part B premium, up from 40 percent in 2018 (data not shown), but only 2 percent of 2018 enrollment was in these premium-reduction plans. For 2019, rebates (which can include allocations to plan administration and profit margin) for nonemployer, non-SNP plans will average \$107 per enrollee per month. The average rebates are 13 percent

higher than they were in 2018 and are the highest in the program's history.

In most counties, a large number of MA plans are available to beneficiaries. For example, in 2019, beneficiaries in 4 counties in northeastern Ohio (Mahoning, Medina, Summit, and Trumbull) and 2 counties in southeastern Pennsylvania (Bucks and Lancaster) can choose from at least 50 plans. Beneficiaries in another 32 counties, including the major markets of Cincinnati, Cleveland, Los Angeles, Miami, New York City, and California's Orange County, have at least 43 plan choices.

At the other end of the spectrum, more than 260 counties, representing 1 percent of beneficiaries, have no MA plans available (MSA plans and SNPs are not included in general availability measures); however, many of these beneficiaries have the option of joining cost plans (another

**TABLE
13-3****Projected benchmarks, bids, and payments as a share of fee-for-service expenditures for 2019, by plan type**

Plan type	Share of FFS spending in 2019*		
	Benchmarks	Bids	Payments
All MA plans	107%	89%	100%
HMO	107	88	100
Local PPO	109	96	104
Regional PPO	105	91	97
PFFS	107	104	106
Restricted availability plans included in totals above			
SNP	106	91	100

All values would be increased by 1 percent to 2 percent if coding intensity were to be reflected fully (i.e., payments for all MA plans would average 101 percent to 102 percent of FFS spending if the coding differences were fully reflected).

Note: FFS (fee-for-service), MA (Medicare Advantage), PPO (preferred provider organization), PFFS (private fee-for-service), SNP (special needs plan). Benchmarks are the maximum Medicare program payments for MA plans and incorporate plan quality bonuses. We estimate FFS spending by county using the 2019 MA rate book. We removed spending related to the remaining double payment for indirect medical education payments made to teaching hospitals.

*All numbers in this table have been risk adjusted and reflect quality bonuses, but they have not been adjusted for coding intensity differences between MA and FFS that exceed the statutory minimum adjustment.

Source: MedPAC analysis of data from CMS on plan bids, enrollment, benchmarks, and fee-for-service expenditures.

managed care option under Medicare).¹ On average, 13 plans are available in each county in 2019, up from 10 in 2018. Plan availability can also be calculated weighted by the number of beneficiaries living in the county to give a sense of the number of plan choices available to the average beneficiary. Under that calculation, the average beneficiary in 2019 has 23 available plans, an increase from 20 plans in 2018.

Plan availability for 2019 was probably affected by CMS's decision to loosen limits on the number of plans (and the minimum actuarial difference between plans) a sponsor may offer in each county. The average number of plans per contract increased to 6.8, up from 6.1 in 2018. While the average number of plans available in a county increased, the number of counties without any plans also increased slightly, meaning that more plans were offered by existing plan sponsors in markets where they were already established.

2019 benchmarks, bids, and payments relative to FFS spending

Using plans' bid projections, we compare the Medicare program's projected MA spending with projected FFS

spending on a like set of FFS beneficiaries. We calculate and present three sets of percentages: the benchmarks relative to projected FFS spending, the bids relative to projected FFS spending, and the resulting payments to MA plans relative to projected FFS spending. Benchmarks are set each April for the following year. Plans submit their bids in June and incorporate the recently released benchmarks. Benchmarks reflect FFS spending estimates for 2018 made by CMS actuaries at the time the benchmarks were published in April 2017. We estimate that 2018 MA benchmarks (including quality bonuses), bids, and payments will average 107 percent, 89 percent, and 100 percent of FFS spending, respectively (Table 13-3). The benchmarks are unchanged from 2018, while the bids and payments are down from 90 percent and 101 percent of FFS, respectively. Note that these numbers do not reflect unaddressed risk coding differences discussed later in this chapter.

How Medicare calculates MA benchmarks

Under the Patient Protection and Affordable Care Act of 2010 (PPACA), each county's benchmark, excluding quality bonuses, is a certain share (ranging from 95

**TABLE
13-4****Distribution of 2019 MA bids relative to FFS**

Bid-to-FFS ratio	Share of bids	Share of projected MA enrollment
Less than 0.7	4%	4%
0.7 to 0.8	11	13
0.8 to 0.9	25	30
0.9 to 1.0	36	35
1.0 to 1.1	19	14
More than 1.1	5	3

Note: MA (Medicare Advantage), FFS (fee-for-service). Employer group plans and special needs plans are not included. Ratios do not account for unaddressed coding intensity differences. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of data from CMS on plan bids, enrollment, benchmarks, and FFS expenditures.

percent to 115 percent, subject to caps) of the average per capita FFS Medicare spending for the county's beneficiaries.² Each county's benchmark, excluding quality bonuses, is determined by organizing the counties into quartiles based on their FFS spending. Each quartile contains 785 or 786 counties. Low-FFS-spending counties have benchmarks higher than FFS to help attract plans, and high-FFS-spending counties have benchmarks lower than FFS to generate Medicare savings. Counties (excluding the territories) are ranked by average FFS spending; the highest spending quartile of counties has benchmarks set at 95 percent of local FFS spending. The next highest spending quartile of county benchmarks is set at 100 percent of FFS spending, followed by the third highest quartile set at 107.5 percent of FFS spending. The lowest spending quartile has benchmarks set at 115 percent of local FFS spending. (U.S. territories are treated like counties in this low-spending quartile.) Counties can move among quartiles from year to year and in doing so receive a blended quartile factor; for example, a county moving from the 100 percent quartile in 2018 to the 107.5 percent quartile in 2019 would have a blended rate of 103.75 percent.

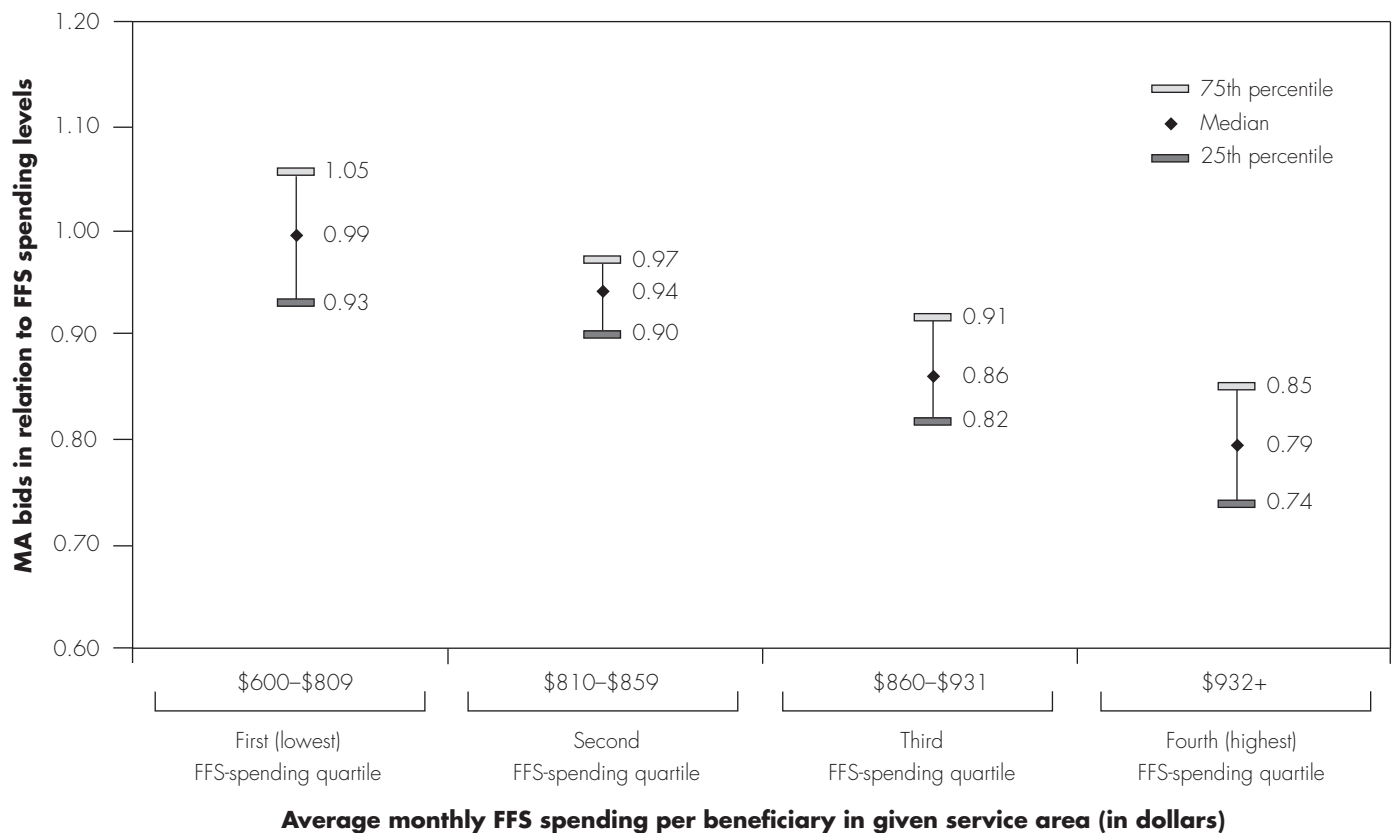
By statute, plans awarded quality bonuses have benchmarks that are 5 percent higher than the standard county benchmarks (subject to benchmark growth caps); in certain counties, plans can receive a double bonus, and the benchmarks for plans awarded quality bonuses are 10 percent higher than the standard benchmarks. Our March 2016 report to the Congress provides more detail on

double-bonus counties and benchmark growth caps. In that report, we recommended eliminating the double bonuses as well as the benchmark growth caps, which limited the benchmarks in many counties (Medicare Payment Advisory Commission 2016).

MA bids and payments for different plan types

In 2019, benchmarks are lower relative to FFS than in earlier years. The benchmarks have exerted fiscal pressure and have led to more competitive bids from plans. Before PPACA (in 2010), benchmarks averaged about 112 percent of FFS and the bids averaged 100 percent of FFS. For 2019, the average nonemployer bid is 89 percent of the projected FFS spending for beneficiaries with similar geographic and risk profiles, down from 90 percent in 2018. About 76 percent of plans bid to provide Part A and Part B benefits for less than what the FFS Medicare program would spend to provide these benefits in 2019 (Table 13-4). These plans are projected to enroll about 83 percent of nonemployer, non-SNP MA enrollees in 2019. About 4 percent of MA enrollees are projected to enroll in plans that bid lower than 70 percent of FFS spending; 3 percent are projected to enroll in plans that bid more than 110 percent of FFS spending.

Figure 13-2 (p. 356) shows how plans bid relative to FFS for service areas with different ranges of FFS spending. This figure is based on data from over 2,950 plan bids and excludes employer plans, SNPs, and plans in the territories. FFS spending ranges roughly correspond to

**FIGURE
13-2****Medicare Advantage bids in relation to FFS spending levels, 2019**

Note: FFS (fee-for-service), MA (Medicare Advantage). Excludes employer group plans, special needs plans, and plans in the territories. Ratios do not account for unaddressed coding intensity differences.

Source: MedPAC analysis of MA bid and FFS expenditure data from CMS.

FFS ranges in the payment quartiles for 2019. Each of the 4 FFS ranges covers the bids of at least 470 plans that include at least 3.3 million projected enrollees.

As expected, plans bid high (relative to FFS) in areas with relatively low FFS spending and bid low (relative to FFS) where FFS spending is relatively high. For example, about half the plans bidding for service areas that average less than \$810 in monthly FFS spending bid more than FFS for 2019 (Figure 13-2). However, in plan service areas averaging more than \$810 per month in FFS spending, plans are likely to bid below (sometimes far below) the FFS level. This finding suggests that, geographically, plan costs do not vary as much as FFS spending. As benchmarks have declined over the past few years, plans

serving areas with benchmarks set at 115 percent of FFS spending (the lowest spending quartile, corresponding to areas with benchmarks below \$810 per month in 2019) have been bidding below FFS more frequently. The median bid for areas in this quartile has declined from 1.11 times FFS in 2013 to 0.99 times FFS in 2019. However, the increased efficiency of plan bids in these areas, which were presumed to be the most challenging for MA plans to compete in, have not translated to Medicare savings. For 2019, Medicare is still paying an average of 111 percent of FFS in these areas because the benchmarks average 118 percent of FFS with the quality bonuses.

Ninety-seven percent of all beneficiaries live in a county served by at least one plan that bid below its service area's

average FFS spending for 2019. However, that does not mean that plans could bid lower than FFS in each county of their service areas (if, for example, each county in a multicounty bid were to have a separate bid of its own).

Although plan bids average less than FFS spending, payments for these plans' enrollees can often exceed FFS spending because the benchmarks (including the quality bonuses) can be high relative to their area's FFS spending. Overall, plan bids average 89 percent of expected FFS spending for beneficiaries with similar geographic and risk profiles in 2019, but because the benchmarks average 107 percent of FFS spending, Medicare pays an average of 100 percent of FFS for beneficiaries enrolled in MA (coding intensity differences are not considered in these numbers). Excluding quality bonuses, Medicare benchmarks average 103 percent of FFS, and Medicare payments would average 98 percent of FFS for MA enrollees.

The ratio of MA plan payments to FFS spending for 2019 varies by plan type (Table 13-3, p. 354). For example, HMOs as a group bid an average of 88 percent of FFS spending, yet payments for HMO enrollees are estimated to average 100 percent of FFS spending because of benchmarks averaging 107 percent of FFS spending. Local PPOs' bids average 96 percent of FFS spending, and PFFS plans have average bids of 104 percent of FFS spending. As a result, payments for local PPO and PFFS enrollees are estimated to be 104 and 106 percent of FFS spending, respectively. Payments for beneficiaries enrolled in regional PPOs average 97 percent of FFS because of the regional PPOs' relatively low benchmarks.

We analyzed bids and payments to SNPs separately because these plans are available only to subpopulations of Medicare beneficiaries, and bidding behavior can differ from that of other plan types. In the past, SNPs' bids and payments tended to be slightly higher (relative to FFS spending) than payments to the other nonemployer MA plans. This year in aggregate, however, SNP bids are slightly higher than other MA bids, but their payments are similar to the average plan.

In the past, we recommended that CMS pay employer plans differently because the employer bids were not usually submitted for a competitive purpose, while the bids for nonemployer plans are submitted to compete for enrollment. (For more details on employer plans and our recommendation, see our March 2014 report to the Congress.) As we recommended, CMS no longer pays the

employer plans based on their bids, but instead pays them based on the bidding behavior of the nonemployer plans. As a result, we expect that payments to employer plans will look somewhat like the payments to the nonemployer plans analyzed here.

MA margins

The continued growth in MA enrollment, the ability of MA plans to bid well below FFS expenditure levels, and plans' ability to provide generous extra benefits point to continued strong financial health in the MA sector. For 2019, the sector has attracted a net of eight additional participating organizations. Sixteen new sponsors will be participating in MA, while six companies will leave the program and two sponsors are being purchased by another company operating MA plans.

Margins for MA sponsors have remained stable. The most recent data available, from 2017, show that MA margins averaged 2.7 percent. This figure excludes Part D—for which we do not have 2017 data—and the following plan categories that do not submit bids: employer group plans, the Medicare–Medicaid demonstration plans, cost-reimbursed plans, Program of All-Inclusive Care for the Elderly (PACE), and MSA plans. The 2017 margin of 2.7 percent compares with an average margin of 2.6 percent in 2016. One factor affecting the slightly better margin result is that, in 2017, MA plans were not subject to payment of the PPACA insurer fees that were applicable in 2016 but suspended for 2017. We have estimated that the insurer fees represent about 1.5 percent of total revenue.

Margins vary by plan type. In the 2017 data, nonprofit plans had a margin of –4.6 percent (vs. –4.5 percent in 2016), while for-profit entities had a pretax margin of 5.2 percent (4.9 percent in 2016, or a 6 percent increase in the margin). The data on nonprofit entities include one outlier sponsor that, as was true in each of the past years we have examined, has a high negative margin while continuing to operate as an MA sponsor over the years. Removing that organization from the data would result in a 2017 margin for nonprofit plans of –0.2 percent. As we noted in the March 2018 report to the Congress, the large difference in margins between for-profit and nonprofit entities may reflect the level of employer group MA enrollment among nonprofit plans. For the years in which the margin data we analyzed included employer group waiver plan (EGWP) bids, we found that EGWP margins were higher than other plans' margins, suggesting that EGWP margins can offset the losses that we see among nonprofit non-EGWP plans.

**TABLE
13-5****Share of Medicare Advantage enrollment by parent organization, October 2018**

Metropolitan areas		Nonmetropolitan areas	
Parent organization	Share of total MA enrollment in metropolitan counties	Parent organization	Share of total MA enrollment in nonmetropolitan counties
UnitedHealth Group Inc.	26%	UnitedHealth Group Inc.	29%
Humana Inc.	16	Humana Inc.	26
Aetna Inc.	9	Aetna Inc.	8
Kaiser Foundation Health Plan Inc.	8	Blue Cross Blue Shield of Michigan	4
Anthem Inc.	4	Anthem Inc.	3
WellCare Health Plans Inc.	3	WellCare Health Plans Inc.	2
Blue Cross Blue Shield of Michigan	2	BlueCross BlueShield of Tennessee	2
CIGNA	2	Highmark Health	2
Centene Corporation	1	UPMC Health System	2
Highmark Health	1	Spectrum Health System	1
Total, top 10 organizations	73	Total, top 10 organizations	80

Note: MA (Medicare Advantage). Includes only Medicare Advantage plans (coordinated care plans, private fee-for-service, and Medicare Medical Savings Account plans). Excluded are cost-reimbursed plans and Medicare–Medicaid demonstration plans. The nonmetropolitan counties include those designated as micropolitan counties and counties that are neither metropolitan nor micropolitan as defined by the Office of Management and Budget. Totals may not sum due to rounding.

Source: MedPAC analysis of CMS monthly enrollment reports, October 2018 (which excludes enrollment for contracts where an organization has fewer than 11 enrollees), and Census data on county designations.

All categories of SNPs had positive margins in 2017: Dual-eligible SNPs (D–SNPs) for Medicare–Medicaid dual-eligible beneficiaries had an average margin of 7.4 percent (compared with 5.9 percent in 2016); chronic condition SNPs (C–SNPs) had an average margin of 9.4 percent (9.7 percent in 2016); and institutional SNPs (I–SNPs) had an average margin of 9.0 percent (14.1 percent in 2016). For 2016, we reported that nonprofit D–SNPs had a margin of –2.3 percent. The comparable figure for 2017 was a margin of –1.5 percent, but that amount includes results for the outlier sponsor (described above) with high negative margins. Removing that sponsor, the 2017 profit margin among nonprofit D–SNPs was positive at 1.1 percent.

We estimate that if we were to include Part D drug margins, doing so would raise the average MA plan margin by approximately 0.5 percent; and if employer plan data were available, as we have noted, the margin levels would likely be higher.

Market structure of the Medicare Advantage program

The MA market has become more concentrated over the years, particularly after 2011. In 2007, the top 4 organizations had 45 percent of MA enrollment—with the top 2 having 41 percent—and the top 10 had 61 percent of total enrollment. At the beginning of 2011, the year before the effective date of PPACA payment changes, the shares remained essentially the same at 46 percent and 60 percent, respectively. In 2017, the top 4 organizations had 59 percent of enrollment—and remained at 59 percent in 2018—and the top 10 organizations had 72 percent of total enrollment, which increased slightly to 74 percent in 2018.

There are differences between metropolitan areas and nonmetropolitan areas (Table 13-5). In metropolitan areas, the top 2 organizations had 42 percent of the 18 million MA enrollees (the same percentage as in 2017). In

**TABLE
13-6****Distribution of population by number of MA parent organizations operating in the county, October 2018**

Number of MA parent organizations in county	As share of total Medicare population	As share of MA enrollment
None	1%	0.1%
1	2	1
2	5	3
3	9	6
4	11	10
5 or more	72	80

Note: MA (Medicare Advantage). Excludes plans offered only to employer group-sponsored retirees. Numbers may not sum due to rounding. The 0.1 percent of MA enrollees residing in areas with no MA organizations are "out-of-area" enrollees whose recorded address is outside of the designated service area of their plan.

Source: MedPAC analysis of CMS enrollment reports.

nonmetropolitan areas, the top 2 organizations accounted for over half the enrollment (55 percent of the 2.5 million MA enrollees residing in these areas, compared with 54 percent in 2017).

Another way of looking at the market structure and level of competition in the MA program is to determine the number of parent organizations offering MA options in markets across the country. In 2018, 92 percent of Medicare beneficiaries resided in a county where at least three companies offered MA plans to individual Medicare beneficiaries, compared with 87 percent in 2017 (Table 13-6). Thus, although the MA market is relatively concentrated by some measures, most beneficiaries reside in geographic areas where multiple companies offer MA options. Among beneficiaries residing in a county with at least three sponsors offering MA products, 30 percent live in a county in which one sponsor has 50 percent or more of the county's MA enrollment.

Looking at access based on the profit status of plans, 65 percent of Medicare beneficiaries reside in a county where a nonprofit plan is available, compared with 99 percent for for-profit plans. Seventy-three percent of MA enrollment in 2018 is in for-profit MA plans, and the top three sponsors have 72 percent of the for-profit MA enrollment. For the 27 percent of MA enrollment in nonprofit entities, 50 percent of enrollees are in the top three sponsors' plans. Each of the top 3 for-profit sponsors have offerings

in 40 or more states for individual (non-employer-group-sponsored) Medicare beneficiaries, and all 3 are often present in a given market. Two of the top three nonprofit sponsors operate in only one state (for individual Medicare beneficiaries), while the third is available in eight states. Two of the three organizations have partially overlapping service areas and compete in the same markets. The majority of Medicare beneficiaries (58 percent) living in metropolitan areas reside in counties where all three of the top for-profit entities have MA plans, which is true for only 21 percent of residents of nonmetropolitan areas.

Medicare Advantage risk adjustment and coding intensity

Medicare payments to MA plans are adjusted to account for differences in beneficiary medical costs through the CMS hierarchical condition category (CMS-HCC) model. The model uses demographic information (e.g., age, sex, Medicaid enrollment, and disability status) and certain diagnoses grouped into HCCs to calculate a risk score for each enrollee. Higher risk scores generate higher payments for beneficiaries with higher expected expenditures, and the reverse is true for lower risk scores. CMS designed this risk adjustment model to maximize its ability to predict annual medical expenditures for Medicare beneficiaries, with some constraints. Therefore, in developing the model,

CMS used statistical analyses to select certain HCCs for inclusion in the model based on each HCC's ability to predict annual Medicare expenditures, ensuring that the diagnostic categories included in the model were clinically meaningful and specific enough to minimize opportunities for gaming or discretionary coding (Pope et al. 2004). CMS applied additional criteria to ensure the validity and reliability of the diagnostic data used in the model and to determine payment to MA plans: (1) diagnoses must appear on a claim from a hospital inpatient stay, a hospital outpatient visit, or a face-to-face visit with a physician or other health care professional and (2) diagnoses must be supported by evidence in the patient's medical record.³

Diagnostic data in the CMS–HCC model are used prospectively, meaning that diagnoses collected during one calendar year are used to predict Medicare costs for the following calendar year. A particular diagnosis code needs to be submitted only once during the data collection year for the related HCC to be counted in an enrollee's risk score in the following payment year. Multiple submissions of the same diagnosis code and submissions of different diagnosis codes that are grouped in the same HCC do not affect an enrollee's risk score.

Each demographic and HCC component in the risk adjustment model has a coefficient that represents the expected medical expenditures associated with that component. These coefficients are estimated based on FFS Medicare claims data such that all Medicare spending in a year is distributed among the model components. Medicare payment for a particular MA enrollee is approximately equal to the sum of the dollar-value coefficients for all components identified for that enrollee.⁴ In practice, the actual dollar amount a plan will receive for newly identifying a particular HCC for an enrollee depends on several additional factors, but for a simplified example of how coding additional HCCs increases payment to a plan, we consider amounts received by an MA plan that are representative of average FFS Medicare spending. In this example, the annual Medicare payment to the MA organization in 2018 for an 84-year-old male who was not eligible for Medicaid (demographic component valued at \$5,707) with diabetes without complication (HCC 19, valued at \$1,058) would have been \$6,765, the sum of the two model components. Documenting each additional HCC for that enrollee can significantly increase the Medicare payment. If the same 84-year-old male with diabetes were also found to have vascular disease (HCC 108, valued at \$3,031), the Medicare payment to the MA

organization would increase from \$6,765 to \$9,796. The payment per MA enrollee for most HCCs when identified is between \$1,000 and \$5,000, although some HCCs increase payment by \$10,000 or more.

In addition to the direct increase in payment rates, plans benefit from coding more comprehensively by gaining advantage through the determination of extra benefits. Plans that can offer a higher value of extra benefits may attract more new enrollees. How coding differences affect the determination of extra benefits is a function of the bidding rules. There are two steps in the bidding process that involve risk adjustment and the determination of extra benefits. In the first step, a plan states its revenue need—its bid—for providing the Medicare Part A and Part B benefit, based on its expected enrolled population, and determines a risk score for the expected population. The second step compares the bid with a benchmark, which is adjusted by the risk score for the plan's expected population so that the comparison is based on a population with equivalent health status. If the bid is higher than the risk-adjusted benchmark, beneficiaries pay the difference in the form of a premium.⁵ When the bid is below the risk-adjusted benchmark, the plan receives part of the difference as a rebate that is used to provide extra benefits to beneficiaries. The size of the rebate (or the value of extra benefits) is a share of the difference between the bid and risk-adjusted benchmark.⁶

Plans that put more effort into documenting all diagnosis codes, increasing their average risk score relative to other plans, can affect the process by inflating the risk-adjusted benchmark used to determine the size of the rebate when compared with the bid. Table 13-7 illustrates this effect, with all three plans having the same cost of care for their set of enrollees, at \$900 per month. Although all three plans have actual costs of \$900 per month, Plans A and Z have an expected risk score below 1.0 (at 0.97), and Plan B has an expected risk score of 1.03. All three plans have bids below the risk-adjusted benchmark and must provide rebates. Because Plan B has a higher risk score, its rebate is larger and it can offer enrollees more benefits—\$37 per month more in extra benefits (\$53 minus \$15). If Plan B has inflated its risk score through greater diagnostic coding effort and its risk score otherwise would be the same as that of Plans A and Z, Plan B will have an unfair competitive advantage. The higher risk score also gives Plan B, which has only 3.5 stars, an advantage over bonus-level Plan Z; Plan B has a higher total rebate amount—\$7

**TABLE
13-7****Illustrative example: Differences in plan risk scores affect the level of extra benefits**

Plan	Bid: Monthly cost of care for expected population	Risk score of expected population	MA benchmark for the county for an average- risk population (+5% for bonus plan)	Risk-adjusted benchmark for this plan (benchmark multiplied by risk score)	Rebate base (risk- adjusted benchmark less cost of care)	Share of base for rebates	Value of extra benefits (rebate amount)
Nonbonus plans							
Plan A (3.5 stars)	\$900	0.97	\$952	\$924	\$24	65%	\$15
Plan B (3.5 stars)	900	1.03	952	981	81	65	53
Bonus plan							
Plan Z (4 stars)	900	0.97	1,000	970	70	65	46

Note: MA (Medicare Advantage). An average-risk population has a risk score of 1.0. This example assumes the actual cost of care for the expected population is \$900 for each of the three plans, and Plan B's risk score of 1.03 is inflated due to greater diagnostic coding effort.

more. Thus, by increasing its risk score from 0.97 to 1.03, Plan B will be able to offer a level of extra benefits that is of more value than that provided through bonus status.

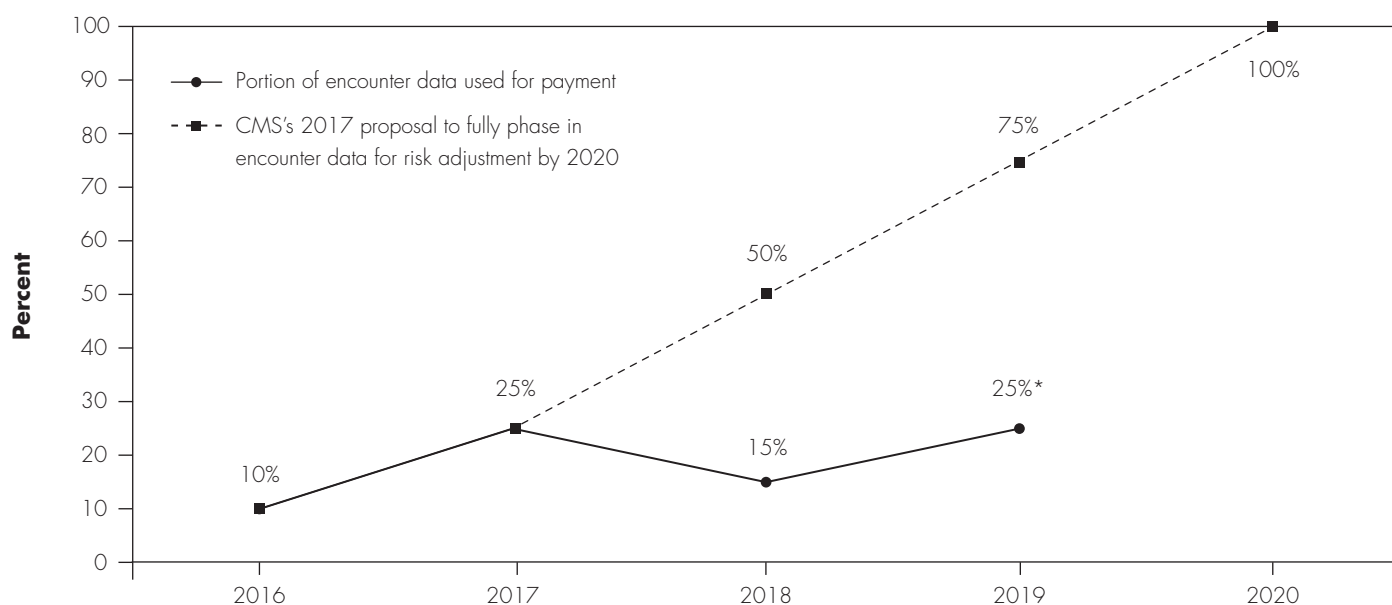
In the example illustrated in Table 13-7, plans have a risk score difference of 6 percentage points that reflects only coding practices. The Commission's analysis of MA coding practices suggests that there is a far wider range of coding variation, with several contracts having risk scores inflated by 15 percent or 20 percent above FFS due to coding practices (see Figure 13-5, p. 365). Thus, the example illustrates how differences in coding practices can more than offset the effect of MA quality bonuses and can have significant consequences for MA payment policy.

MA plans submit diagnostic information to CMS in two ways: (1) through the Risk Adjustment Processing System (RAPS), where plans submit the minimum information necessary to identify which HCCs apply to each enrollee, and (2) through the encounter data system (EDS), where MA plans submit detailed information about each health care encounter an enrollee has with a Medicare provider. CMS initially used RAPS to calculate risk scores, but in 2016, it began a transition to use encounters as the source of diagnostic information by generating two risk scores, one based on RAPS data and one based on EDS data.⁷ Figure 13-3 (p. 362) shows the use of encounter data for risk adjustment since 2016. In that year, payment was based on a blend of the RAPS risk score (90 percent) and the EDS risk score (10 percent). In 2017, CMS increased

the portion of the payment based on EDS risk scores to 25 percent and stated an intention to continue to increase the use of EDS until 2020 (dashed line in Figure 13-3, p. 362), when payment would be fully based on EDS risk scores. However, for 2018, CMS reduced the portion of the payment based on EDS risk scores to 15 percent. For 2019, CMS will base 25 percent of risk scores on encounter data, except that inpatient RAPS data will be added to encounter data. Because 75 percent of risk scores will be based on RAPS data and the remaining 25 percent of risk scores will use combined RAPS inpatient and encounter data, the actual proportion of risk scores based on encounter data will be less than 25 percent. During the period that both sources of risk score data are used for payment, MA plans need to submit data supporting each HCC through both RAPS and EDS to maintain consistent payment rates.

Differences in MA and FFS Medicare diagnostic coding

In the CMS-HCC risk adjustment model, CMS uses FFS Medicare claims data to estimate the size of the model coefficients. As a result, the model calculates an expected spending amount based on FFS Medicare costs and diagnostic coding patterns. Most diagnoses are reported through physician and outpatient claims, which, in FFS Medicare, tend to be paid based on procedure codes and provide little incentive to document diagnoses for FFS beneficiaries. If certain diagnoses are not reported on FFS claims, the cost of treating those conditions is attributed to

**FIGURE
13-3****Use of encounter data for MA risk scores, 2016–2020**

Note: MA (Medicare Advantage).

*For 2019, CMS will add inpatient Risk Adjustment Processing System data to encounter data, thus making the true proportion of risk scores based on encounter data less than 25 percent.

Source: CMS announcement of MA rates.

other components in the model, causing the coefficients *overall* to be inflated above the value they would have if the diagnoses had been reported. It is necessary for payment accuracy in MA that diagnoses be coded with the same intensity in FFS Medicare and MA, meaning that if the proportion of all reported diagnoses were equal in the two programs, coefficients would not be inflated, and there would be no payment inaccuracy. However, if MA plans submit more diagnoses for a particular beneficiary than would have been documented in FFS Medicare, the program spends more for that beneficiary to be in MA. We have found that MA coding intensity is higher than FFS Medicare, and payments to MA plans are thus higher than intended. Our prior analysis of this issue addressing 2007 through 2013 showed that MA risk scores increased faster than FFS by nearly 6 percent in the first year of MA enrollment and by about 1.5 percent in subsequent years of MA enrollment (Medicare Payment Advisory Commission 2018a).

We have discovered several mechanisms that MA plans use to document diagnoses for MA enrollees to maximize risk scores. These mechanisms do not exist in FFS

Medicare. Passive mechanisms are driven by greater diagnostic information sharing, such as plan and provider relationships that allow plans greater access to electronic medical record diagnostic information (e.g., staff-model HMOs) and the use of capitated contracts through which physicians are paid a risk-adjusted sum, thereby passing the coding incentives on to physicians with direct access to medical records and diagnostic information. In addition, plans actively collect diagnoses through health risk assessments, chart reviews of earlier provider encounters, and pay-for-coding programs in which plans pay doctors to complete patient assessment forms that confirm diagnoses that have not yet been documented. While these efforts can have a dual purpose, such as improved care management, some companies offering services to collect diagnostic information use language that targets enrollees based on a lack of documentation rather than a direct clinical focus. Our March 2018 report to the Congress describes the passive and plan-initiated mechanisms that we believe contribute to higher rates of diagnosis documentation in MA, resulting in higher payments (Medicare Payment Advisory Commission 2018b).

Policies to address the impact of coding differences

A series of congressional mandates have required CMS to reduce MA risk scores as a way of addressing the impact of coding differences. Because of the mandates, CMS reduced MA risk scores by 3.41 percent in each year from 2010 through 2013. Starting in 2014, the mandates specified a minimum reduction of about 4.9 percent, which increased gradually to about 5.9 percent in 2018, where it will remain until CMS estimates a risk adjustment model using MA cost and use data. CMS reduced MA risk scores by the minimum amount required by law for 2014 through 2018, although larger reductions would have been allowed.

CMS has taken an additional step to help control the increased coding intensity in MA by phasing in a new CMS–HCC model that removes some diagnoses suspected of being more aggressively coded by MA plans (e.g., lower severity kidney disease and polyneuropathy). Our analysis suggests that the new CMS–HCC model makes MA risk scores more similar to FFS scores by reducing them by 2 percent to 2.5 percent relative to the old model. The new model was phased in during 2014 and 2015, and MA payments were based entirely on the new model in 2016.

Before 2017, the HCC model accounted for dual enrollment in Medicare and Medicaid with a set of variables that increased payment for Medicaid enrollees. This approach treated MA enrollees with partial Medicaid enrollment and MA enrollees with full Medicaid enrollment as a single group; however, enrollees with full Medicaid benefits have Medicare spending that is significantly higher than enrollees with partial Medicaid benefits. As a result, risk scores under the old model were systematically too low for full dual enrollees and too high for partial dual enrollees.⁸ In addition to the inaccuracy in individual risk scores, partial dual enrollees make up a larger share of dual enrollees in MA than in FFS Medicare, causing the overall risk scores for MA enrollees who are enrolled in Medicaid to be inflated under the old model. For 2017, CMS began differentiating between MA enrollees with full Medicaid and partial Medicaid enrollment using separate models that more accurately determined risk scores for partial benefit and full benefit Medicaid enrollees.⁹ We found that the 2017 model reduced MA risk scores by almost 1 percent by accurately determining risk scores for subgroups of beneficiaries, particularly partial dual and full dual enrollees.

Impact of coding differences on payment to MA plans

To assess the overall impact of coding differences on payments to MA plans for a given year, we built retrospective cohorts of beneficiaries enrolled in either FFS or MA for all of 2017. We tracked each beneficiary backward for as long as they were continuously enrolled in the same program (FFS or MA) or as far back as 2007. Our analysis calculates differences in risk score growth by comparing FFS and MA cohorts with the same years of enrollment (e.g., 2007 through 2017, 2008 through 2017, etc.), adjusting for differences in age and sex.

Figure 13-4 (p. 364) shows the impact of differences in coding intensity on MA risk scores relative to FFS for payment years 2013 through 2017 and the amount by which CMS reduced MA risk scores for the coding intensity adjustment in each year. The difference between the lines shows the portion of coding intensity impact that was not accounted for by payment policies and resulted in the additional Medicare spending for beneficiaries enrolled in MA relative to the amount Medicare would have spent if the same beneficiaries had been enrolled in FFS Medicare. Three different versions of the CMS–HCC risk model were used for payment over this period. A blend of two of these model versions was used for payment in 2014 and 2015.

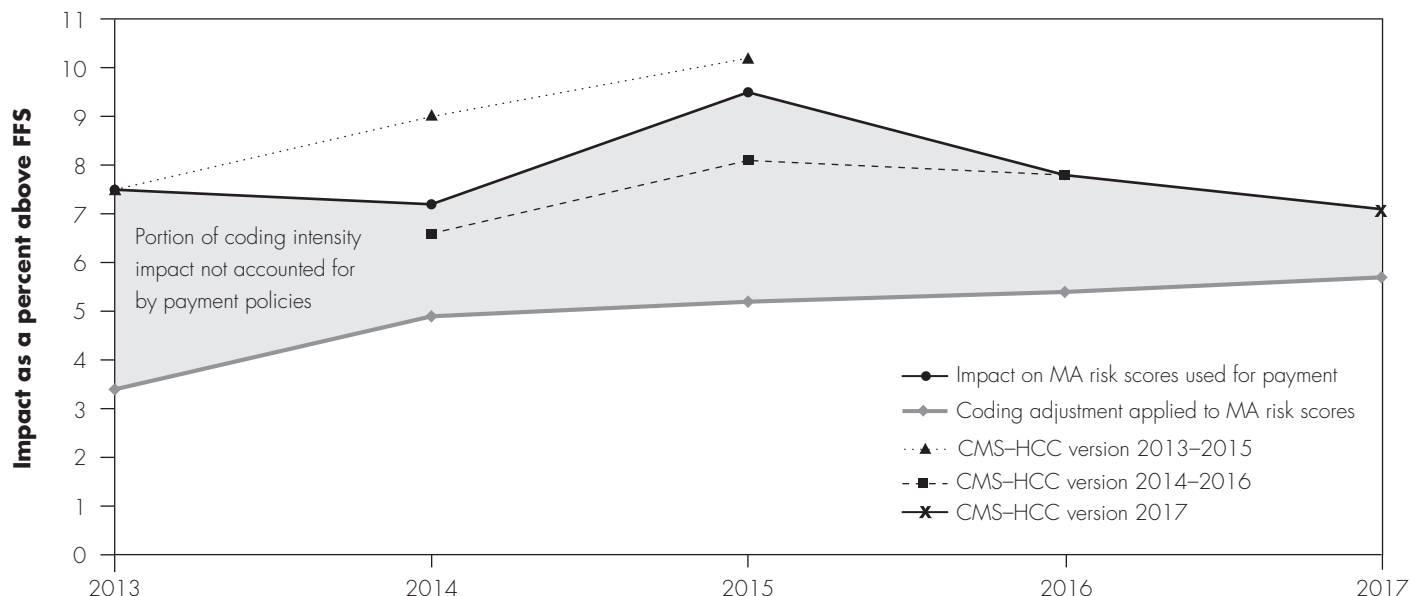
The impact of coding intensity on MA risk scores changed over this period, largely because of three factors: changes to the risk score model used for payment, changes in MA risk score growth relative to FFS risk score growth, and the addition of encounter data as a source of diagnostic information.

Changes in the risk model

Our analysis has found that newer versions of the CMS–HCC model have been less susceptible to diagnostic coding differences between MA and FFS. Figure 13-4 (p. 364) shows that the version phased in over 2014 to 2016, removing specific diagnoses with large differences in MA and FFS coding rates, reduced the impact of coding differences by 2 percent to 2.5 percent. The version introduced in 2017, adding separate aged/disabled and Medicaid enrollment status segments, reduced the impact of coding differences by almost 1 percent.

Relative risk score growth rates

Between 2013 and 2015, our analysis shows that MA risk score growth outpaced FFS risk score growth by 1 percent

**FIGURE
13-4****Impact of coding intensity on MA risk scores was larger than coding adjustment, 2013-2017**

Note: MA (Medicare Advantage), FFS (fee-for-service), CMS-HCC (CMS-hierarchical condition category). All estimates account for any differences in age and sex between MA and FFS populations. A blend of two model versions was used for payment in 2014 and 2015.

Source: MedPAC analysis of CMS enrollment and risk score files.

to 1.5 percent per year, increasing the overall impact of coding intensity on MA risk scores in each year. Between 2015 and 2016, MA risk scores continued to increase at about the same rate as in prior years, but FFS risk scores grew faster than prior years and roughly matched the MA risk score growth rate.¹⁰ Risk score growth between 2015 and 2016 was affected by the transition from ICD-9 to ICD-10 diagnosis codes. Between 2016 and 2017, we again found similar growth rates for MA and FFS risk scores, with MA risk score growth outpacing FFS by only 0.3 percent. An increase in the penetration of alternative payment models in FFS Medicare over this period may also have affected the FFS risk score growth rate.

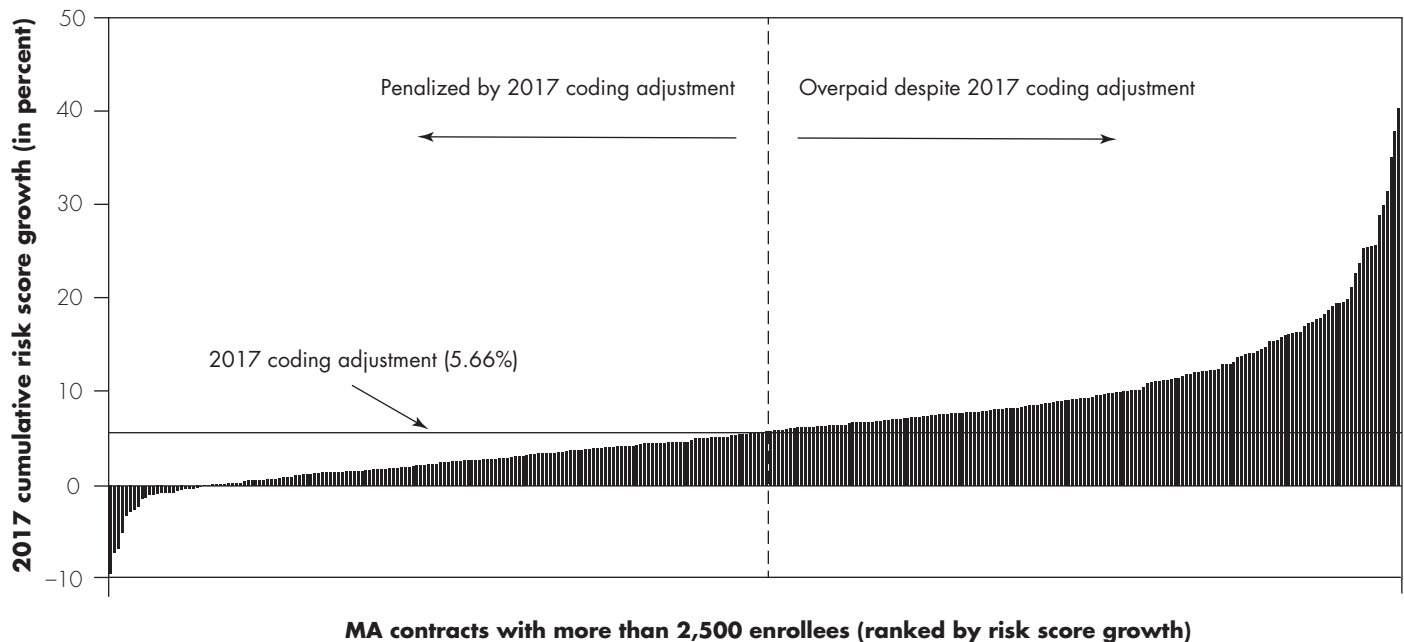
Encounter data as a source of diagnostic information

Starting in 2016, CMS blended risk scores based on encounter data with risk scores based on RAPS data. We found that encounter-based and RAPS-based risk scores were the same for about 92 percent of MA enrollees in

2016 and 93 percent of MA enrollees in 2017.¹¹ However, for enrollees with different encounter-based and RAPS-based risk scores, the RAPS score tends to be higher. Overall, encounter-based risk scores were about 2 percent lower than RAPS-based risk scores in both 2016 and 2017, despite a decrease in the overall difference by about a half percent in 2017. The phase-in of encounter-based risk scores (see Figure 13-3, p. 362) reduced the overall impact of coding intensity by about 0.2 percent in 2016 and by about 0.4 percent in 2017. For 2018, CMS decreased the use of encounter-based risk scores to 15 percent, which is likely to increase the impact of coding intensity on MA risk scores.

Overall impact of MA coding intensity

We found that MA risk scores for 2017 were about 7 percent higher than for a comparable FFS population. The decline from our 2016 estimate of 8 percent is the net of faster MA risk score growth (0.3 percent), implementing a new version of the risk adjustment model (-0.8 percent), and increasing the use of encounter data for risk scores

**FIGURE
13-5****Cumulative MA risk score growth varied across contracts relative to local FFS, 2017**

Note: MA (Medicare Advantage), FFS (fee-for-service). MA contracts with enrollment below 2,500 (representing about 1 percent of total MA enrollment), contracts for the Program of All-Inclusive Care for the Elderly, and special needs plans are not included.

Source: MedPAC analysis of CMS enrollment and risk score files.

(-0.4 percent).¹² Relative to FFS Medicare, we found that because of coding intensity, MA risk scores in 2017 were between 1 percent and 2 percent higher than CMS's adjustment for coding intensity (which was 5.66 percent in 2017). In other words, after accounting for all coding adjustments, payments to MA plans in 2017 were between 1 percent and 2 percent higher than Medicare payments would have been if MA enrollees had been treated in FFS Medicare. The magnitude of these findings is similar to other research showing that the impact of coding differences on MA risk scores is larger than CMS's adjustment for coding (Congressional Budget Office 2017, Geruso and Layton 2015, Government Accountability Office 2013, Hayford and Burns 2018, Kronick and Welch 2014).

Variation in coding intensity across MA contracts

For 2017, we continued to find that nearly all MA contracts have risk scores that are higher than FFS

scores and that the impact of coding intensity across MA contracts varies widely. This finding is based on a similar analysis we conducted of coding differences, but the change in risk score for each MA beneficiary was attributed to the contract (excluding contracts in the Program of All-Inclusive Care for the Elderly and SNPs) in which the beneficiary was enrolled in 2017, thereby capturing the coding impact for each contract's 2017 payments. Figure 13-5 illustrates the variation across contracts with more than 2,500 enrollees in 2017 relative to FFS in their local service area.¹³ Our finding that coding intensity varies across MA contracts is consistent with other research (Geruso and Layton 2015, Kronick and Welch 2014). Given this variation, CMS's across-the-board adjustment for coding intensity, which reduces all MA risk scores by the same amount, generates inequity across contracts by disadvantaging plans with lower coding intensity and allowing other plans to retain a significant amount of revenue from higher coding intensity.

Commission's prior recommendation on coding intensity

The Commission's long-standing position is that the Medicare payment policies should be financially neutral regardless of whether beneficiaries enroll in MA or FFS Medicare. Excess payments to MA plans allow them to offer additional benefits to enrollees, thus benefiting the MA program but costing taxpayers more than if MA beneficiaries had remained in FFS Medicare. Further, additional payments to MA plans increase the Part B premium for all Medicare beneficiaries. The size of the Part B premium is based on total Part B spending, which for MA is calculated as a proportion of all MA spending.

In our March 2016 report to the Congress, the Commission recommended a multipronged approach that would fully account for the impact of coding differences and would improve the equity of the adjustment across MA contracts. The recommendation, which would replace the current coding intensity adjustment, had three parts:

- develop a risk adjustment model that uses two years of FFS and MA diagnostic data;
- exclude diagnoses that are documented only on health risk assessments (HRAs) from either FFS or MA; and then
- apply a coding adjustment that fully and equitably accounts for the remaining differences in coding between FFS Medicare and MA plans.

Using two years of diagnostic data would improve the accuracy of both FFS and MA HCC information and would reduce year-to-year variation in documentation. The 21st Century Cures Act codifies the Secretary's authority to use two years of diagnostic data in MA risk adjustment by stating that, for 2019 and subsequent years, "the Secretary may use at least two years of diagnosis data." Removing diagnoses documented through only HRAs would mean that a diagnosis had to be treated in order to count in risk adjustment calculations. Diagnoses that were both documented on an assessment and treated would continue to count toward risk adjustment. However, of the HCCs documented on HRAs in MA, about 30 percent were not treated during the year. In FFS, only about 6 percent of diagnoses documented on HRAs were not treated during the year.

Implementing these two policies would result in a more equitable adjustment across MA contracts than the current

across-the-board adjustment because they target coding differences more effectively. Our analysis suggests that the combined effect of using two years of diagnostic data and excluding diagnoses from HRAs would effectively reduce MA risk scores by roughly 3 percent to 5 percent relative to FFS Medicare and thus would address roughly half of the impact of coding differences, reducing the need for the coding intensity adjustment described in the third part of the Commission's 2016 recommendation.

The Commission has also discussed ways to implement the third part of the recommendation using a method that improves equity across MA contracts. Such a method would be to group contracts into categories of high, medium, and low coding intensity and apply a coding intensity adjustment based on each group's average level of coding intensity. CMS has used a similar approach to select MA contracts for risk adjustment data validation (RADV) audits.¹⁴ While this policy would leave some inequity within each group of contracts, overall inequity would be reduced. CMS could consider using a greater number of groups to further refine the equity of the overall adjustment.

Risk adjustment data validation

Medicare payments to MA plans are based, in part, on diagnostic data that plans submit to CMS. Program rules state that, to be used for payment, diagnoses submitted for risk adjustment must result from a hospital inpatient stay, hospital outpatient visit, or a face-to-face visit with a physician or other health care professional; diagnoses also must be supported by evidence in the patient's medical record. For both RAPS and encounter data, MA plan leadership signs an attestation that risk adjustment criteria are applied correctly and submitted data are accurate. However, only for encounter data does CMS independently verify that diagnoses result from a hospital inpatient stay, hospital outpatient visit, or a face-to-face visit with a physician or other health care professional. The use of encounter data significantly improves oversight of payment data and offers the opportunity to ensure their validity before payments are made to MA plans. CMS must conduct RADV audits of both encounter and RAPS data to ensure that diagnoses are supported by the medical record, but RADV audits of RAPS data must also check whether diagnoses are made during an encounter with an appropriate type of provider.

RADV audits determine whether an MA plan was overpaid due to invalid data and calculate an overpayment

amount to recover from the plan. CMS audits address about 30 contracts per year (roughly 5 percent of MA contracts) and use a sample of 201 enrollees who had at least 1 HCC reported and met certain other criteria.¹⁵ The sample includes 67 randomly selected enrollees from each of three strata (low, medium, and high) defined by risk score. For each beneficiary, the audit calculates a payment error rate, defined as the portion of the beneficiary's HCC-based payment that was not based on valid data. Beneficiary payment error rates can be offset if any additional HCCs are found that were not submitted for payment but were supported by the beneficiary's medical record.¹⁶ For the initial round of audits of 2007 data, CMS recovered overpayments for only beneficiaries in the sample of 201 enrollees. For subsequent audits, CMS is proposing to recover overpayments for the entire contract by extrapolating the payment error rates for the sampled enrollees. For extrapolation, a contract's payment error rate would be set at the lower 99th percent confidence interval of beneficiary-level error rates in the sample. If the contract payment error rate is greater than zero, the overpayment recovery amount would be the payment error rate at that confidence interval multiplied by the total payment for the contract.¹⁷

Based on the Department of Health and Human Services' annual audit of a nationally representative sample of MA enrollees, the MA overpayment rate for 2016 (the most recent year available) was calculated to be 8.1 percent, or \$15.55 billion (Department of Health and Human Services 2018). However, RADV audits of MA contracts have been limited so far. Audits of 2007 RAPS data identified diagnoses that did not meet risk adjustment criteria and determined that average overpayment rates were well over 10 percent for most contracts under audit (Schulte 2016). CMS recovered \$13.7 million in overpayments from audits of 37 contracts, based on only overpayments for the 7,437 beneficiaries included in the sample of beneficiaries for the contracts under audit (Centers for Medicare & Medicaid Services 2017). No audits were conducted for payment years 2008 through 2010. For audits of 2011, 2012, and 2013 payment years, CMS stated that it expects to recoup about \$650 million in overpayments based on the extrapolation method (Centers for Medicare & Medicaid Services 2018).

In reviewing the RADV audit process, government analysts noted that RADV audits are tasked with recouping billions of dollars in improper payments to MA plans based on RAPS data, but their report found a

host of shortcomings with the audits, including that the audits should be more targeted at contracts with a higher likelihood of overpayments (Government Accountability Office 2016).

Increase the use of encounter data for risk adjustment

Given that one-third of the Medicare population is now enrolled in MA, the Commission believes it is essential for MA plans to submit complete encounter data and that CMS should continue working with plans to improve the completeness and accuracy of submitted encounter data. So far, the main use of encounter data has been as a source of diagnoses for risk adjustment. Before accepting encounter data records, CMS applies a more robust review process than RAPS, requiring the submission of many more data elements related to an encounter and assessing the face validity. We believe this review process provides a more substantial check on the submission of inaccurate or fraudulent data relative to the RAPS submission process. Before the use of encounter data for risk adjustment, plans returned to Medicare hundreds of millions of dollars in overpayments resulting from unsupported diagnoses in RAPS data. CMS explains that the awareness of forthcoming RADV audits generated a "sentinel effect" for plans to ensure their diagnostic data can be verified during the audit process, causing plans to return overpayments. We believe plans' comparison of RAPS and encounter-based risk scores also may have served as a check on their process of submitting RAPS data. Such comparisons could identify RAPS records that were not supported by encounter data, as well as encounter records in need of submission to match valid RAPS records. For 2015 and 2016 dates of service, we found that RAPS and encounter-based risk scores converged, which we believe is the result of improvement in the quality of both data sources.

Given the convergence of RAPS and encounter-based risk scores and the more robust review of encounter data before making payments to plans, we believe CMS should move as soon as possible to discontinue the collection of RAPS data and rely only on encounter data for risk adjustment. For 2019, CMS will use encounter data, along with inpatient RAPS data, to identify diagnoses for a new version of the risk adjustment model, which will be the basis for 25 percent of MA payments. This version of the model incorporates changes that, by statute, must be fully implemented for 2022 payment. We believe CMS should maintain the use of encounter data for the new version of the model, resulting in using only encounter

data for risk adjustment by 2022. However, CMS should not supplement encounter data with any RAPS data for use with the new model. A swift transition to using only encounter data for risk scores would be consistent with the Commission's support for increasing incentives for plans to submit complete encounter data, which could serve a multitude of purposes. In the next section, we note that using encounter data as the basis for measuring MA plan quality would allow for consistent quality measurement between MA and FFS and would provide an additional incentive for MA plans to submit complete encounter data.

Quality in Medicare Advantage is difficult to evaluate

With one-third of the Medicare population enrolled in MA plans, it is important to have good information on the quality of care MA enrollees receive and how that quality compares with the level of quality in FFS Medicare. Quality in MA cannot be properly evaluated without an ability to compare MA quality with that of FFS, including in accountable care organizations. Such a comparison is important for the Medicare program in determining MA performance and changes in performance over time, in evaluating payment policy in MA, and in determining the adequacy and appropriateness of the standards applied to MA plans (for example, by using quality results as an indirect measure of network adequacy in MA plans). The ability to compare MA and FFS quality is also important for beneficiaries. Choosing between MA and FFS is a threshold choice that beneficiaries make before getting to the step of deciding among available MA plans.

As we note in the background section of this chapter, MA plans have a number of tools at their disposal that are not available in FFS but which permit plans to improve the quality of care for their enrollees—tools such as selective contracting, care management, information systems shared across providers, and utilization management that can prevent overutilization of potentially harmful care. We would therefore expect quality in MA to be better than that of FFS, and some research does indicate that MA plans perform better than FFS on quality metrics.

One frequently cited study is the Newhouse and McGuire overview of the state of MA in which they conclude that “available measures, while limited, suggest that, on average, MA plans offer care of equal or higher quality” as compared with FFS (Newhouse and McGuire 2014).

Their conclusion is guarded because of what they say about the available data: “Unfortunately, it is difficult to compare the quality of care in TM [traditional Medicare] and MA because the data necessary to do so are sparse. A few comparisons can be made, however, from the data reported by beneficiaries in...CAHPS [Consumer Assessment of Healthcare Providers and Systems®] surveys....HEDIS process measures are available to assess technical quality among MA plans...but there is no comparable reporting for [FFS].... Most HEDIS process measures cannot be calculated from the [FFS] claims data...because the measures require data from the medical chart...” (Newhouse and McGuire 2014). In a footnote to the March 2018 report to the Congress, the Commission commented on a more recent study comparing MA and FFS quality by Timbie and colleagues (Timbie et al. 2017); the same issue arises in that study, which is that there cannot be a FFS-to-MA comparison of measures that plans report based on information from the medical record.

Measures that can be computed with MA administrative data could be compared with FFS claims-based data. For example, McGuire and Newhouse found that for such a measure—the breast cancer screening rate—MA has higher rates of screening (Newhouse and McGuire 2014), which is also what Timbie and colleagues found in their three-state study (Timbie et al. 2017). Such measures can also be compared across and within geographic areas. For example, with respect to possible overutilization of services, in the June 2018 report to the Congress, the Commission reported on the results of our analysis of a HEDIS measure—non-recommended prostate-specific antigen (PSA) screening for men age 70 or older, computed from MA administrative data—that could be compared with FFS rates computed from claims data. For a number of metropolitan statistical areas (MSAs), when FFS had high rates of such testing, MA plans also had high rates in the 2015 data. The correlation coefficient of the MA and FFS relative rankings of the frequency of the test was a moderate 0.60 but increased to 0.69 on removing MSAs with large shares of enrollees in Kaiser Foundation Health Plan MA plans (because of these plans' extremely low rates of non-recommended PSA testing). The findings suggest that many MA plans could improve and do significantly better than FFS by paying attention to this measure (which is not a measure used in the MA star ratings; breast cancer screening is a star measure).

To summarize the issues with the current data and the limitations in comparing MA and FFS, the data need to

be complete (for example, we do not have good data on MA plans' use of post-acute care); it is not possible to compare measures that MA collects by means of medical record sampling with FFS results unless there is a similar data collection process; and for measures that would have to be risk adjusted (such as mortality rates), differences in MA and FFS coding practices need to be taken into account. The wave of contract consolidations has reduced the ability to have valid comparisons among MA plans, particularly for measures based on medical record sampling. As contracts cover larger and larger geographic areas, contract-level samples of 411 records cannot be relied on to examine differences among MA plans because those samples represent different geographic areas and are not otherwise representative of the population served by a plan in a given area. With the current state of MA quality data, reliable information comparing FFS and MA, or comparing different MA plans in an area, is not available to an important audience—Medicare beneficiaries—as we show with an illustrative example (p. 370).

The Commission's March 2018 report to the Congress contains a detailed discussion of the difficulty of evaluating the quality of care within the MA sector and changes in MA quality from one year to the next. The current rating system uses a 5-star scale to determine performance at the level of individual quality measures (such as clinical quality measures and patient experience measures) and then determines an overall star rating that is the weighted average of up to 46 measure-level star ratings. The overall star rating is the basis for bonus payments in the MA quality bonus program, with bonuses available when the overall star rating is 4 stars or higher. What has made this system unreliable as a basis for evaluating quality is that collection and reporting of each of the 46 measure results, and the determination of the overall star rating, occurs at the level of the MA contract. Under current rules, an MA contract can include any number of geographic areas, and there is no requirement that the areas be contiguous. In 2018, about 40 percent of MA enrollees were in HMO or local PPO contracts that drew a substantial number of enrollees from contract service areas consisting of noncontiguous states. The largest MA contract, with 1.3 million enrollees as of July 2018, had over 1,000 enrollees in each of 45 states and over 20,000 enrollees in each of 18 states. The top five states in enrollment for this contract had 47 percent of the plan's enrollment: Alabama, California, Georgia, Illinois, and North Carolina.

In 2010, given how much the quality of care can vary from one local area to another, the Commission recommended that CMS change to reporting at the local market area level (suggesting the use of metropolitan statistical areas and, in nonmetropolitan areas, groupings based on the patterns of where beneficiaries received care). This recommendation was repeated in our March 2018 report to the Congress. The Commission's repeating of the 2010 recommendation was prompted by another issue that the Commission has examined extensively, which is the practice of consolidating contracts to achieve higher star ratings. CMS has encouraged sponsors to consolidate their MA contracts to streamline program administration for CMS and for plan sponsors. Through 2019, the rules for determining star ratings, and therefore eligibility for bonus payments, provided plan sponsors with the opportunity to use the contract consolidation strategy to obtain unwarranted bonus payments. A sponsor is permitted to consolidate two or more contracts and choose which contract would be the "surviving" contract. The star rating of the surviving contract applies to the "consumed" contract(s) immediately—both for purposes of bonus payments and the star rating appearing on the Medicare Plan Finder site that beneficiaries can use to choose among plans. For 2019, plan sponsors have used this strategy to move about 550,000 enrollees from nonbonus contracts to bonus-level contracts, resulting in unwarranted bonus payments in the range of \$200 million in 2019. In the preceding five years, over 4 million enrollees were moved from nonbonus plans to bonus plans, including situations in which surviving contracts that fell below 4 stars underwent subsequent consolidations and were consumed by bonus-level contracts.

Effective 2020, the Bipartisan Budget Act of 2018 changes the policy on plan consolidations. For new consolidations, the star rating of the surviving contract will be the enrollment-weighted average of the quality results for the contracts being merged. While this change in policy will prevent sponsors from obtaining unwarranted bonus payments when a small, highly rated contract absorbs a larger nonbonus contract, sponsors will still be able to obtain unwarranted bonus payments by consolidating contracts when they can be assured that the weighted average results from combining nonbonus and bonus-level contracts will produce a bonus-level star rating for the surviving contract.

**TABLE
13-8****In 2017, fee-for-service and Medicare Advantage Consumer Assessment of Health Providers and Systems® performance rates were similar**

CAHPS measure	FFS	MA
Getting needed care and seeing specialists	84%	84%
Getting appointments and care quickly	77	78
Care coordination	86	86
Rating of health plan	83	86
Rating of health care quality	85	86
Annual influenza vaccine	74	73

Note: CAHPS® (Consumer Assessment of Healthcare Providers and Systems®), FFS (fee-for-service), MA (Medicare Advantage). The MA rate is the enrollment-weighted average rate for all MA contract types other than cost-reimbursed HMOs. Other than the influenza vaccination rate, rates are case-mix adjusted for response bias.

Source: MA CAHPS based on MedPAC analysis of 2018 plan ratings. FFS CAHPS mean scores provided by CMS.

Comparing MA and FFS quality

As we have noted, currently, there is only one source of data provided to beneficiaries through the Medicare.gov website that can be used for a direct comparison of MA and FFS, which is the patient experience measures and the influenza vaccination rates collected through the Consumer Assessment of Healthcare Providers and Systems® (CAHPS®). At a national average level, in 2018, there was little difference between MA and FFS results, though the influenza vaccination rate is lower among MA enrollees in HMOs as compared with the national average FFS rate (Table 13-8). The 2018 results are similar to past years' results (see, for example, the 2015 results in the Commission's March 2017 report to the Congress, where the only meaningful differences were in the influenza vaccination rates, with HMOs and FFS at about the same level (72 percent) and local PPOs at 74 percent (Medicare Payment Advisory Commission 2017).

There may be some value in having information about a national-level comparison of MA and FFS performance, but of greater importance to beneficiaries—and, arguably, to policymakers—is to have market-level comparisons. While the Medicare Plan Finder website provides beneficiaries with the CAHPS information by MA contract and for FFS by geographic area, a specific example we discuss below illustrates the issues with the current method of collecting and reporting data as it affects comparisons of MA plans and an MA-to-FFS comparisons. The issues are common to both the CAHPS data and the other quality measures that plans report.

In our illustrative example, a beneficiary residing in Phoenix, AZ, is looking to enroll in an MA plan in 2019 and wishes to compare MA results with FFS results. For the influenza vaccination rate reported through CAHPS, the FFS rate is a statewide rate for all of Arizona (74 percent). For the MA plans available in Phoenix in the Plan Finder results for the 2019 enrollment period, reported influenza vaccination rates range from 55 percent to 79 percent. However, the contract with the 79 percent rate had no enrollees in Arizona at the time the vaccination rates were determined. The 79 percent rate is based on enrollment in a contract that drew one-third of its enrollment from Hawaii, nearly half from Iowa, and nearly 20 percent from Nebraska. This contract is present in the Phoenix market in 2019 as a result of a contract consolidation whereby this sponsor's 2018 Arizona contract (with a star rating below bonus status) was absorbed by the Hawaii-Iowa-Nebraska contract (with a bonus-level star rating), thereby enabling the sponsor's Arizona enrollees to be in a contract with a bonus-level star rating for 2019 payments. The Arizona contract absorbed by the Hawaii-Iowa-Nebraska contract was itself the product of a consolidation into a contract that originally served the contiguous states of Missouri and Kansas and then absorbed five single-state contracts in Colorado, Illinois, New Mexico, and Texas, in addition to an Arizona contract.

A within-Arizona comparison of MA and FFS results on the influenza vaccination measure is possible because there are MA contracts in Arizona that in 2018 only

**TABLE
13-9**

In 2018, influenza vaccination rates for contracts serving exclusively Arizona varied, with lower rates among SNP contracts

Contract	SNP status and enrollment distribution, 2018	Share of enrollment under age 65 in December 2016	Influenza vaccination rate, 2018
H0354	Non-SNP (91 percent of enrollment) and C-SNP	9%	77%
H2593	Non-SNP (48 percent); C-SNP (40 percent); I-SNP (12 percent); (In 2019, Maricopa County has only 1 I-SNP available)	14	72
H0302	Non-SNP only	9	71
R7220	Non-SNP only (regional PPO plan)	N/A	68
H0351	Non-SNP (89 percent) and C-SNP	14	65
H5580	SNP-only contract, 100 percent D-SNP	45	65
H0321	SNP-only contract, 100 percent D-SNP	44	64
H4931	SNP-only contract, 100 percent D-SNP	42	63
H5430	SNP-only contract, 100 percent D-SNP	49	61
H5587	SNP-only contract, 100 percent D-SNP	49	55

Note: SNP (special needs plan), C-SNP (chronic conditions SNP), I-SNP (institutional SNP), PPO (preferred provider organization), D-SNP (dual-eligible SNP).

Source: MedPAC analysis of CMS enrollment data and plan reports, CMS data on CAHPS® (Consumer Assessment of Healthcare Providers and Systems Survey®) vaccination rates.

enrolled residents of Arizona (though one of those contracts will no longer be an Arizona-only contract because in 2019 it is being consolidated with Texas and Tennessee contracts). Table 13-9 shows the variation in CAHPS influenza vaccination rates among those contracts and the features of those contracts that may explain some of the variation.

Among the contracts listed in Table 13-9, all contracts that exclusively serve Medicare–Medicaid dually eligible beneficiaries (and that have high shares of beneficiaries entitled to Medicare based on disability) perform relatively poorly on the influenza vaccination measure. Although the influenza vaccination rate was a measure that CMS evaluated for adjustment based on low-income status and disability through the peer-grouping process used for MA plan star ratings (the categorical adjustment index), CMS concluded that the measure did not have significant systematic differences across the population categories within MA plans (though one might argue, based on the Arizona data, that a reevaluation of this conclusion result may be worthwhile).

In our hypothetical example of a resident of Phoenix, a Medicare–Medicaid dually eligible beneficiary considering enrolling in one of the D-SNP-only contracts might decide to choose FFS based on the sector’s apparently better performance on the influenza vaccination rate. However, the FFS rate of 74 percent may be misleading. The vaccination rate differences that we see between D-SNPs and non-SNP plans suggest that there are significant differences in vaccination rates based on beneficiaries’ dual-eligibility status. If dual status, in Arizona at least, explains differences in influenza vaccination rates, the FFS rate (and plan rates in a geographic area) should be stratified by dual-eligible status to better compare FFS and MA results and to compare results within the MA sector. The 74 percent vaccination rate in FFS is the result for a population that, as of December 2016, in Arizona, consisted of 90 percent non-dual-eligibles and 10 percent dually eligible beneficiaries, as compared with the MA population consisting of 71 percent non-dual-eligibles and 29 percent dually eligible beneficiaries.

Stratification of results would require sufficient sample sizes for the CAHPS measures based on surveys, measures based on the Health Outcomes Survey, and the many measures that MA plans report that are based on a sampling of medical records. The National Committee for Quality Assurance (NCQA) is requiring MA plans to report certain Healthcare Effectiveness Data and Information Set® (HEDIS®) measures on a stratified basis beginning in 2019. The four measures are breast cancer screening, all-cause readmissions, and two measures that plans report based on medical record sampling: colorectal cancer screening and eye exams for diabetics. Measures are to be reported by low-income-subsidy status, Medicaid dual-eligibility status, and disability status. The rationale for the stratified reporting is that NCQA found that “a Medicare Advantage plan’s performance on quality measures is sensitive to its proportion of beneficiaries who have lower socioeconomic status” (National Committee for Quality Assurance 2018).

Current quality results

As discussed in our March 2018 report to the Congress, with the wave of consolidations, it has become more difficult to make general statements about the quality of care in MA and changes from year to year. The approach settled on in that report was to rely on enrollment-weighted average results across all contracts as the most logical way of providing a general picture of MA quality. Below, we provide an update to the reporting of enrollment-weighted measure results, but the approach is not entirely satisfactory because a number of important measures are determined through a sampling of a small number of medical records at the contract level (411 per contract). To the extent that a contract covers a wide geographic area, each area will represent a small segment of the sample, and geographic variation in measure results may not be adequately captured. This issue and additional issues in the determination of star ratings are discussed in detail after the review of current quality results.

Using CMS data on weighted average HEDIS results and comparing data from the most recent year to the prior year’s data, the large majority of the 50 measures that can be compared showed little change (a change of 3 percent or less) between 2017 and 2018. Two measures used for star ratings improved at relatively substantial rates: osteoporosis management in women with a fracture (improving by 12 percent, to 51.9 percent) and medication reconciliation postdischarge (improving by 8 percent, to 63.2 percent). Seven measures—none of which are

used for star ratings—showed a decline of greater than 3 percent between 2017 and 2018. One declining measure was the frequency of prescribing high-risk medications for the elderly (that is, plans reported higher rates of such use). The remaining six measures that declined pertained to treatment of mental health or alcohol/drug dependency. (The star measures include only one mental health measure, which is the Health Outcomes Survey (HOS) measure of whether a beneficiary reports maintenance or improvement in his or her mental health. The Commission’s March 2010 report to the Congress noted that CMS advised us at that time that the available mental health measures applied to too few people to be included as star measures (Medicare Payment Advisory Commission 2010).)

Between 2017 and 2018, the enrollment-weighted average rates were unchanged for the star-related HEDIS measures collected through the HOS (monitoring physical activity, reducing the risk of falling, and improving bladder control). The same is true for the HOS-based measures of whether beneficiaries reported improvement or maintenance of their physical health (one measure) or their mental health (a separate measure). There was also virtually no change in the six star measures taken from the CAHPS patient experience surveys or the influenza vaccination rate measure collected through the CAHPS survey (Table 13-10).

We used the enrollment-weighted approach to examine 19 HEDIS, HOS, and CAHPS star-rating measures that we were able to compare over a longer period of time (over the last 4 years, 2016 to 2019, or 3 periods of year-to-year changes) and that we examined separately for HMOs and local PPOs. The majority of measures did not show major changes over this period. For example, among the measures included in Table 13-10, for both HMOs and local PPOs, there was virtually no change in CAHPS measure results or the influenza vaccination rates over the three-year period. However, the measure of reducing the risk of falling declined between 2016 and 2019 for both HMOs (by 6 percent) and local PPOs (by 5 percent); and among local HMOs, the measurement of maintenance or improvement of mental health improved by 5 percent.

Overall among HMOs, 5 of 19 measures improved by 3 percent or more, and only the measure of reducing the risk of falling declined in the 2016 to 2019 period. A measure showing major improvement was the osteoporosis management measure (improving by 22 percent). Trending

**TABLE
13-10****There was little change in results for survey-based measures in MA over the last year****Measures collected through the HOS**

Star rating year	Improving or maintaining physical health	Improving or maintaining mental health	Monitoring physical activity	Reducing the risk of falling	Improving bladder control
2018	67%	85%	53%	57%	45%
2019	68	83	53	57	45

Measures collected through CAHPS®

Star rating year	Influenza vaccination rates	Getting needed care	Getting appointments	Customer service	Rating of quality of care	Rating of plan	Care coordination
2018	73%	84%	78%	90%	87%	87%	86%
2019	72	84	79	91	87	87	86

Note: MA (Medicare Advantage), HOS (Health Outcomes Survey), CAHPS® (Consumer Assessment of Healthcare Providers and Systems Survey®). Year 2018 star ratings were released in October 2017; year 2019 star ratings were released in October 2018.

Source: MedPAC analysis of CMS star data and enrollment reports.

of other measures that improved is less reliable because they are based on contract-level medical record sampling or contract-level surveys. Those measures had incremental improvements, including colorectal cancer screening and eye exams for diabetics (in addition to the HOS measure of maintaining or improving mental health), which each improved by 5 percent. Control of blood sugar among diabetics improved by 4 percent. Among local PPOs, the six measures that improved were the osteoporosis management measure (by 50 percent); the body mass index (BMI)—recording measure (also based on medical record sampling), colorectal cancer screening, eye exams for diabetics, and blood sugar control among diabetics (each by 8 percent); and the kidney disease—monitoring measure (by 5 percent). Of the 23 star measures in 2019 that allow for HMO results to be compared with local PPO results, results for 17 measures are within 1 percent of each other. Local PPOs outperform HMOs in the influenza vaccination rate (76 percent vs. 73 percent), and for five measures, HMOs show better performance. HMOs show substantially better performance than local PPOs in the osteoporosis management measure (17 percent better than local PPOs), medication reconciliation after discharge measure (10 percent better), and managing the risk of falling measure (7 percent better).

Developing a method of comparing MA and FFS quality

The need to be able to compare MA and FFS quality has long been recognized. The Medicare Improvements for Patients and Providers Act of 2008 includes a requirement for the Commission to conduct a study on this issue—that is, methods that could be used to compare MA and FFS quality (in addition to studying how to compare quality among MA plans). In its March 2010 report, the Commission made a number of recommendations in response to the mandate, including the following:

- meaningful use standards for electronic health records should be such that those records could form the basis of quality metrics;
- quality results should be collected and reported on a market area—basis for the two sectors;
- the HOS should be fielded for FFS beneficiaries (rather than only MA, and only if such surveys would produce meaningful results); and
- specifications for encounter data submission should be such that encounter data could be the basis for calculating patient outcome measures.

Regarding the last point, there are many advantages to relying primarily on encounter data as the basis for evaluating quality in MA—not the least of which is the ability to compare FFS and MA results using a data source that is more likely to ensure consistency of measurement between the two sectors. Encounter reporting is a mechanism that is perhaps less subject to variation across plans in MA given the standards that apply to the submissions. Using encounter data that plans are already required to submit can substitute for other plan reporting and can address some of the weaknesses of the current quality reporting system. For example, we frequently note that plans that are new to MA tend to show poorer performance on plan-reported quality measures collected through HEDIS, and their ability to report improves over time. Such improvement reflects greater familiarity with the reporting system and better administration, but it often does not mean there has been any change in the quality of care. Similarly, plans with sophisticated electronic medical record systems frequently have better HEDIS results than other plans (compare, for example, the differences between plans that report based on administrative data and those that report based on medical record review for measures in which both options are possible) (Medicare Payment Advisory Commission 2018a). In contrast with measures reported based on medical record sampling, claims and encounter data (when the encounter data are complete and accurate) can provide information on the universe of beneficiaries receiving care. Such complete reporting facilitates analysis of issues such as geographic variation in quality and permits stratification by the factors that NCQA recommends (all of which are known from administrative data). In FFS, a number of quality measures are already calculated using claims data (such as mortality, readmissions, and Medicare spending per beneficiary), and such measures could also be calculated based on encounter data.

Examining the Medicare Advantage star rating system

In this section, we discuss the results of our detailed examination of various aspects of the MA star rating system and suggest possible ways of improving aspects of the quality measurement system.

MA contracts are rated using a 5-star rating system that includes up to 46 measures of clinical quality, patient experience, and administrative performance. Measures are assigned different weights, with outcome measures more heavily weighted than process measures. A contract's

star rating is the weighted average of the star values for the individual measures. For most measures, CMS uses what we refer to as a “tournament model” to evaluate plan performance and to group that performance into the five different star levels. Under this model, each year CMS determines new statistical “cut points” for ranking plans into the five star groups. Every year, the tournament, or competition, among plans determines which contracts fall into which star category—regardless of what the cut points might have been in the preceding year.

The star rating system is intended to help beneficiaries evaluate their Medicare choices and serves as the basis of bonus payments to plans. Bonus payments take the form of a 5 percent increase in the MA benchmark (or 10 percent in some counties) for plans with an overall average rating of 4 stars or higher. In addition to the Commission's concerns regarding unwarranted payments and inaccurate information on MA quality in many areas, we have additional concerns with the implementation of the star system. These concerns are consistent with those raised by a technical expert panel sponsored by CMS (Damberg and Paddock 2018) and are the subject of proposed changes in CMS's recent notice of proposed rulemaking (Centers for Medicare & Medicaid Services 2018).

Contract-level reporting of quality and nonrepresentative samples

Wide contract configurations—that is, contracts extending across a wide, disparate geographic area—have a particular impact on quality measurement at the level of individual star measures because of the manner in which the measures are collected and reported. Of the 11 HEDIS clinical quality measures in the star system that plans report for all enrollees, 7 are based on a sample of medical records (with only a few plans reporting based on administrative data for 6 of the 7 measures). These measures constitute 65 percent of the weight of the HEDIS non-survey-based measures. Under current rules, it is sufficient for a contract to use a sample of 411 medical records to report on the 7 HEDIS measures (to obtain a sample result with a 95 percent confidence level). For measurement year 2016, the largest MA contract (with over 1 million enrollees) used a sample of 437 diabetics to determine the contract-level rate of blood sugar control among diabetics; 25 percent of the contract's enrollment was in states with 5 or fewer enrollees in the sample of 437, and 4 percent of the contract's enrollment was in states not represented at all in the sample. Given the extent to which the quality of medical care can vary from

area to area, the current method of determining sample-based quality results cannot ensure that a given area's representation of plan quality is accurate.

The issue also affects the CMS peer-grouping methodology that adjusts overall star ratings for contracts with high shares of low-income beneficiaries and beneficiaries entitled to Medicare on the basis of disability. One aspect of the peer grouping examines within-contract differences in the two categories of beneficiaries. With small sample sizes for the different beneficiary categories in each contract, the data that can form the basis of the peer-grouping analysis are likely to be insufficient.

To address this issue, the Commission has a standing recommendation that quality be reported at the local geographic level, which would require larger samples. Even if quality continued to be reported at the contract level, increased sample sizes would capture geographic variation and would improve the peer-grouping methodology. Sample sizes should be increased or alternative measures should be used that can be reported by geography—such as claims-based and encounter-based measures.

Employer group waiver plan enrollees as an adjustment category and their exclusion from the disenrollment star measure

In assigning overall star ratings that are the basis of bonus payments, CMS uses a peer-grouping method that recognizes differences among contracts for two categories of Medicare beneficiaries (low-income beneficiaries and those entitled to Medicare on the basis of disability). Our analysis suggests that enrollees of employer group waiver plans (EGWPs) should be treated as an additional separate category in the peer grouping. About 20 percent of MA enrollees are enrolled in EGWPs, in which employers or unions enter into contracts with MA organizations to provide coverage to Medicare-eligible retirees, and their enrollment is concentrated in a small number of contracts. At the individual measure level, our analysis indicates that EGWP status would meet the CMS criteria for determining whether this category of beneficiaries has results that are systematically and significantly different from other categories of beneficiaries. (EGWP status can be viewed as a proxy for higher income status, a peer-grouping category that complements the already-recognized low-income status of some enrollees.)

A star measure for which EGWP status has a significant effect is the disenrollment rate measure. Contracts

with significant EGWP enrollment perform well on the disenrollment rate star measure. Among contracts with EGWP enrollment of 30 percent or higher, 29 of the 31 contracts (94 percent) had a 5-star rating in the disenrollment measure in 2018, and the remaining 2 contracts had 4 stars. Of the 343 MA contracts with EGWP enrollment below 30 percent, 135 (39 percent) had a 5-star rating for the disenrollment measure. CMS recognizes the special status of EGWP enrollees in the disenrollment rate measure by removing EGWP enrollees who disenroll from a contract from the numerator for the measure—that is, an EGWP disenrollment does not count against a plan in computing the contract disenrollment rate. However, it would seem logical to also remove EGWP enrollment from the denominator for this measure, making the measure the rate at which non-EGWP enrollees are disenrolling from non-EGWP products.

To mitigate the impact of EGWP enrollment on star ratings, employer group waiver status should be added as a factor in determining the categorical adjustment index for adjustments to star ratings based on peer grouping by population categories. EGWP enrollees should be removed from both the numerator and denominator of the disenrollment rate star measure.¹⁸

The “cliff” and “plateau” for bonus payments

In the star rating system, there are “cliffs” and “plateaus” with respect to a contract's bonus status. The cliff issue is that a contract with an overall rating below 3.75 stars does not receive any quality bonus payment benchmark increases. The star rating system also features a bonus plateau issue: Once 4 stars are reached, benchmarks do not increase. Plans have only limited incentives to reach a level above 4 stars. (Plans with 4.5- or 5-star ratings do slightly increase the rebate share levels, and 5-star plans can enroll beneficiaries outside of the annual election period. Five-star plans are also highlighted in Health Plan Finder, giving them an advertising advantage.)

To eliminate the cliff and plateau issues, CMS could employ an approach similar to the hospital value incentive program (HVIP) that the Commission is examining for the hospital quality program (see Chapter 15 of this report). The HVIP uses a continuous scale for determining financial rewards so that cliffs and plateaus are minimized. Medicare can define performance targets (i.e., set the performance scale) using different methods. For example, the targets can be set along a broad distribution of historical data so that most entities have the opportunity to earn credit for their performance. In principle, targets

should be prospectively set and should encourage both high and low performers to improve.

Issues with the tournament model; outliers and other circumstances in which certain results should be excluded from star measures

The Commission favors the use of predetermined targets for Medicare’s quality programs and the determination of bonuses and penalties. However, the Commission recognizes that in certain limited cases the tournament model can be used to determine what are achievable targets for certain measures. In particular, this model could be used with new measures or measures that have had significant changes in their specifications. In its recent proposed rule, CMS suggests using its current tournament method (as opposed to modified tournament methods it is proposing) for the first three years for new measures. We would suggest that the method be applied for the first three years in which the measure affects plan payments through the bonus program. Plans are more likely to attempt to rapidly improve measures when there are payment incentives associated with the measure.

CMS is proposing a change to the tournament model by adding “guard rails” that limit the range of possible cut-point thresholds from one year to the next (for example, a limit of a 5 percentage point change for measures on a 100-point scale). The tournament model is a point-in-time determination of the best and worst performers, and each year could have a different set of best and worst performers. The Commission noted in a comment letter to CMS that, as a result, the tournament model does not ensure that there will be sector-wide improvement. A general decline in quality in MA from one year to the next would still result in contracts receiving bonuses because the cut points (thresholds) for the star levels would likely be lower than in the preceding year. The Commission commented that in such a case the cut points should not be allowed to drop below the preceding year’s cut points (Medicare Payment Advisory Commission 2018b).

Outliers In a tournament model, outliers should probably not be “contestants” in the tournament that decides the winners and losers, as we illustrate below with the readmission star results in MA. New plans should likely also be excluded for their initial period of operation.

As it is currently applied, the tournament model for determining the cut points for each of the five star ratings “forces” the placement of measure results into five groups. Outliers can have a significant influence on

the composition of the five groups. For example, for the hospital readmission measure in 2018, there was only one contract in the 1-star group. The contract had a high readmission rate but only 24 admissions. At the other end of the distribution, many of the 5-star plans also had a small number of admissions. These results are probably not statistically valid. (CMS is proposing to increase the minimum number of admissions for this measure to 150.)

How to treat potential outliers is pertinent both for the tournament model and for a system of fixed performance targets. When historical plan results are being considered in determining a reasonable fixed prospective target, certain plans should be excluded from consideration when determining what is an achievable or desirable fixed target. For example, if 100 contracts are able to have a readmission rate of 5 percent or less only because of small numbers, the results for those contracts need to be viewed as potential “noise” that should not be considered in setting a target.

Specifically for the readmission measure, contracts with small numbers of admissions should be excluded, as CMS is proposing. In addition, the contracts with high star ratings in readmission rates are often primarily or exclusively SNPs for institutionalized beneficiaries (I–SNPs). Such plans have a much greater ability to control hospital admissions and readmissions because they can use the alternative setting of the skilled nursing facility where the I–SNP enrollee resides to provide a higher level of care than might otherwise be provided. Plans that are not I–SNPs should thus not be compared with I–SNP plans in evaluating readmission rates.

The distribution of star ratings is affected by who the “competitors” are in the tournament model. The composition of contracts included can change from year to year by factors unrelated to plan quality—for example, as contracts consolidate to achieve higher star ratings. The entry of new plans also affects the relative ranking of plans in a tournament model. Given that new plans tend initially to perform more poorly, new plans should likely be treated as outliers for their initial period of operation.

A number of measures can improve the determination of star ratings to address these issues. The tournament model is appropriate for new measures. Star cut points should not decline from one year to the next. Outliers and new contracts (during their initial period of operation) should be excluded when determining star rating cut points. Finally, I–SNPs should be excluded from consideration in the readmission measure.

**TABLE
13-11****For some star measures, there is very little differentiation among the five star levels**

Measure	1 star	2 stars	3 stars	4 stars	5 stars
CAHPS® customer service	<88	≥88	≥89	≥91	≥92
HEDIS® diabetes care, eye exams	<47	≥47	≥59	≥72	≥81

Note: CAHPS® (Consumer Assessment of Healthcare Providers and Systems Survey®), HEDIS® (Healthcare Effectiveness Data and Information Set®). Star cut points are based on 2018 ratings.

Source: MedPAC analysis of CMS star ratings data.

Bonus eligibility based on small differences in CAHPS measure results

For some measures, such as patient experience measures from CAHPS, there are very narrow differences separating bonus-eligible star levels from nonbonus levels, as compared with other star measures (Table 13-11). These minimal differences may not provide a reasonable basis for deciding which plans are operating at a bonus level of performance and which are not.

Although there is clustering of most CAHPS results within a narrow range, there is some differentiation at the measure level that meets CMS's definition of what constitutes a practical difference in results.

Given this differentiation, one possibility is to focus on plans with extremely poor relative performance and, possibly, those with very high performance. The low-performing plans could receive a 1-star rating and the highest performing plans could receive a 5-star rating. All other plans would receive a 4-star rating, with the intent being that their performance is satisfactory and their rate for this CAHPS measure is a "hold harmless" rate that should not bring the plan below 4 stars nor should it allow the plan to achieve more than 4 stars. Alternatively, the mid-performing plans could be held harmless by being excluded from this measure (and other measures that exhibit the same patterns of performance).

Improving the patient experience and patient-reported measures

The Commission believes that patient experience measures are important to the program and to beneficiaries as indicators of quality. So, it is a matter of concern that there is little distinction among plans in CAHPS measures and

in the HOS measures of maintenance or improvement of physical and mental health. Beneficiaries already rate their plans in the CAHPS survey, but adding a "net promoter" question as the first, most salient CAHPS question—that is, the question of whether a person would recommend the plan—may provide more information, in a more understandable way, for beneficiaries. For the HOS measures, a possibility is to oversample beneficiaries with chronic conditions or other known conditions to see whether there are greater differences among plans in their ability to maintain or improve health.

Reducing burden, aligning measures, and comparing MA and FFS

We have commented that sample sizes need to be increased for certain HEDIS measures. The same would be true for CAHPS measures to be reported at the local market level. Such changes would impose an additional burden on plans, but we do not view the burden as undue because the data are necessary for determining MA quality. That burden can be lessened by aligning quality measures across sectors (MA and FFS) and across payers (Medicare and other payers) and by moving to claims-based measures for FFS, which have their analogue in MA as encounter-based measures. The burden of reporting could be diminished, and the uniformity of measurement as well as the comparability with FFS could be enhanced by having measures based on MA encounter data that could be compared with FFS claims-based quality results.

The Commission makes a distinction between measures used for payment incentive programs—generally, a small set of outcome-oriented measures and patient experience measures—and other measures for public reporting and for plans and providers to use for their quality monitoring

purposes. Even for measures that do not affect payment, plans and providers have an incentive to do well on such measures if they are publicly reported and can enhance (or harm) the reputation of a plan or provider. However, some process measures could be eliminated. These would include “topped out” measures that do not reveal differences among plans or measures of marginal utility, such as the HEDIS measure of whether a person’s BMI has been recorded in the medical record—without regard to whether any action is taken if the BMI is in an unhealthy range.

Future direction of MA payment policy

To summarize the status of MA, many indicators of performance are positive, as evidenced by the growth in enrollment, increased plan offerings, and extra benefits that are at a historically high level. Also, certain policies have helped reduce the impact of coding differences between MA and FFS.

For the immediate future, the Commission plans to (1) reassess how to evaluate quality under the MA quality bonus program, (2) look at ways to account for continued coding differences between MA and FFS and how to address those differences in a complete and equitable way, and (3) ensure the completeness and accuracy of encounter data as a means of improving the payment system as well as serving as a source of data to evaluate quality in MA and make comparisons with FFS quality.

Going forward, the Commission may wish to look at MA payment policy from a broader perspective. When the PPACA payment reforms that reduced MA program payments were instituted, there was some concern about whether MA would continue to grow and attract Medicare beneficiaries. This fiscal pressure did not have the negative effect that some had predicted. Instead, bids have come down in relation to FFS, even in areas where sponsors might have found it challenging to operate successful plans, such as in low-FFS-spending areas where MA benchmarks are at 115 percent of FFS.

On average across the nation, MA payments are nearly at parity with FFS expenditure levels, consistent with the Commission’s support of equity between the two programs. A reasonable question to ask, though, is whether 100 percent of FFS payments is the right yardstick for evaluating the efficiency of the MA program, given that we would expect plans to be more efficient than FFS.

In setting payment policy in FFS, the Commission tries to have a level of fiscal pressure applied to providers to promote the efficient provision of care while maintaining good access. FFS payment policies of that nature have an effect on MA payments because MA benchmarks are based on FFS expenditure levels. This relation means that currently all savings to the program that come from MA must be generated through FFS spending reductions. However, if there were additional fiscal pressure on plan benchmarks, plan innovations could contribute more to Medicare program savings. In the future, the principle of parity can encompass the concept of achieving an equal level of cost and quality pressure between MA and FFS. ■

Endnotes

- 1 Beneficiaries in some parts of the country also have access to Section 1876 cost-reimbursed HMOs. Such plans arrange for the full range of Medicare services. They receive reasonable cost reimbursement for Part B physician and supplier services, but the Medicare program directly pays providers for inpatient and outpatient institutional services. Enrollees of cost plans are not locked into the plan and can receive any out-of-network services and have them paid by the Medicare program. The statute calls for the phasing out of cost plans in areas in which there are at least two competing MA CCPs that meet a minimum enrollment requirement. The cost plans are expected to transition to MA plans and some have already begun the transition.
- 2 FFS spending is calculated for all Medicare beneficiaries, which include those with both Part A and Part B coverage and those with only Part A or Part B. In our March 2017 report to the Congress, we recommended that CMS change the calculation to include the FFS spending for only those beneficiaries with both Part A and Part B.
- 3 Other possible sources of diagnostic information—such as encounters for home health, skilled nursing, ambulatory surgery, durable medical equipment, lab and imaging tests, and hospice services—are not used to determine payment through the risk adjustment model because adding diagnoses from these sources does not improve the model’s ability to predict medical expenditures, because there are concerns about the reliability of diagnoses from providers with less clinical training (e.g., home health and durable medical equipment), or because there is a high proportion of rule-out diagnoses (e.g., lab and imaging tests).
- 4 In practice, the actual dollar amount a plan will receive for coding a new HCC depends on several additional factors, including the version of the HCC model applied for a beneficiary and factors that affect a plan’s base rate. Dollar-value coefficients are standardized relative to average FFS spending before being applied to each plan’s base rate. Different versions of the HCC model account for disability status; status as partially, fully, or not eligible for Medicaid; as well as enrollees who lack a full calendar year of diagnostic data, are institutionalized, or have end-stage renal disease. A plan’s base rate varies according to the plan’s bid and the local area’s benchmark.
- 5 In this case, the premium amount is determined based on the normalized, or non-risk-adjusted, bid and benchmark difference. However, greater coding intensity reduces the normalized bid, thereby reducing the premium that beneficiaries pay to Medicare. To the extent that higher coding intensity reduces premium amounts, Medicare is not reimbursed for the full amount intended by the payment policy.
- 6 The percentage applied to the difference between the bid and the benchmark varies from 50 percent to 70 percent, depending on the plan’s star rating.
- 7 In 2015, CMS combined RAPS data and encounter data for risk adjustment, meaning that plans were paid for HCCs identified through at least one of the two data sources submitted to CMS.
- 8 Partial Medicaid enrollment generally provides premium and cost-sharing assistance for Medicare benefits, while full Medicaid enrollment also covers additional services not covered in the Medicare benefit.
- 9 The 2017 model also determines Medicaid enrollment status on a monthly basis during the payment year, which improves the accuracy of payment for these enrollees. The model has separate segments based on aged or disabled status, combined with no, partial, or full Medicaid enrollment status.
- 10 FFS risk score growth matched MA risk score growth between 2015 and 2016 for the first time since the full implementation of the HCC model in 2007. MA risk scores were still higher than FFS risk scores for comparable beneficiaries (because of prior differences in coding rates). CMS’s calculation of the risk score normalization factor, which functions to keep the average FFS risk score at 1.0 in each year, showed evidence of faster FFS risk score growth in 2016 and 2017 relative to prior years.
- 11 CMS identifies diagnoses from physician visits using a different method for RAPS and encounter data. The two methods of filtering physician claims for use in risk adjustment were intended to produce equivalent results, but it is possible that RAPS-based and encounter-based risk scores would not be equivalent because of the different methods of filtering physician claims.
- 12 New MA enrollees have risk scores that are not based on diagnoses and therefore are not affected by MA coding intensity. We found that the share of new enrollees in 2017 was larger than in 2016, causing the overall impact of coding intensity to decline by about 0.1 percent. The changing share of new enrollees from one year to the next may also affect overall impact of MA coding intensity, but we expect this change to have only a small impact in any given year.

- 13 About 1 percent of MA enrollees are in a contract with fewer than 2,500 enrollees.
- 14 For risk adjustment data validation audits in 2011, CMS grouped all contracts into high, medium, and low levels of coding intensity and selected 20 high-level, 5 medium-level, and 5 low-level contracts at random.
- 15 Other criteria include Part B enrollment for the full data collection year, continuous enrollment in the contract for the full data collection year and January of payment year, and no end-stage renal disease or hospice status.
- 16 Additional HCCs not submitted for payment yet supported in the medical record can offset beneficiary payment error rates but will not result in additional payments to the MA plan. MA plans are required to submit diagnoses for payment.
- 17 CMS is currently collecting comments on this method of determining overpayment recovery (Centers for Medicare & Medicaid Services 2018).
- 18 Because beneficiaries receiving the Part D low-income subsidy (LIS) for premiums were able to disenroll from MA plans on a month-by-month basis prior to 2019, we also examined whether disenrollment rates among contracts with a high share of LIS enrollees had relatively lower star ratings in the disenrollment measure. We did not find that to be the case. For the 2019 star ratings, looking at the 2018 enrollment distribution, 36 percent of plans with 90 percent or higher LIS enrollment were at 5 stars. Among contracts with LIS enrollment below 90 percent, a similar share, 39 percent, were at 5 stars on the disenrollment measure.

References

- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018. Medicare and Medicaid programs; policy and technical changes to the Medicare Advantage, Medicare prescription drug benefit, Program of All-Inclusive Care for the Elderly (PACE), Medicaid fee-for-service, and Medicaid managed care programs for years 2020 and 2021. Final rule. *Federal Register* 83, no. 212 (November 1): 54982–55088.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017. Medicare Advantage risk adjustment data validation audits fact sheet, June 1. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Monitoring-Programs/Medicare-Risk-Adjustment-Data-Validation-Program/Resources.html>.
- Congressional Budget Office. 2017. *Effects of Medicare Advantage enrollment on beneficiary risk scores*. Working paper 2017–08. Washington, DC: CBO.
- Damberg, C., and S. Paddock. 2018. RAND Medicare Advantage (MA) and Part D Contract Star Ratings Technical Expert Panel, May 31 meeting, August 31. https://www.rand.org/pubs/conf_proceedings/CF391.html.
- Department of Health and Human Services. 2018. *Agency financial report FY 2018*. Washington, DC: HHS.
- Geruso, M., and T. Layton. 2015. *Upcoding: Evidence from Medicare on squishy risk adjustment*. NBER working paper no. 21222. Cambridge, MA: National Bureau of Economic Research.
- Government Accountability Office. 2016. *Fundamental improvements needed in CMS's effort to recover substantial amounts of improper payments*. GAO–16–76. Washington, DC: GAO.
- Government Accountability Office. 2013. *Medicare Advantage: Substantial excess payments underscore need for CMS to improve accuracy of risk score adjustments*. Washington, DC: GAO.
- Hayford, T. B., and A. L. Burns. 2018. Medicare Advantage enrollment and beneficiary risk scores: Difference-in-differences analyses show increases for all enrollees on account of market-wide changes. *Inquiry* 55 (January–December): 46958018788640.
- Kronick, R., and W. P. Welch. 2014. Measuring coding intensity in the Medicare Advantage program. *Medicare & Medicaid Research Review* 4, no. 2: E1–E19.
- Medicare Payment Advisory Commission. 2018a. *A data book: Health care spending and the Medicare program*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2018b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2010. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- National Committee for Quality Assurance. 2018. Notification of measure changes for HEDIS® 2019. Draft document for HEDIS public comment based on analysis in “Accounting for Socioeconomic Status in HEDIS Measures.” <https://www.ncqa.org/hedis/reports-and-research/hedis-and-the-impact-act/>.
- Newhouse, J. P., and T. G. McGuire. 2014. How successful is Medicare Advantage? *Milbank Quarterly* 92, no. 2 (June): 351–394.
- Pope, G. C., J. Kautter, R. P. Ellis, et al. 2004. Risk adjustment of Medicare capitation payments using the CMS–HCC model. *Health Care Financing Review* 25, no. 4 (Summer): 119–141.
- Schulte, F. 2016. Medicare Advantage audits reveal pervasive overcharges. <https://www.publicintegrity.org/2016/08/29/20148/medicare-advantage-audits-reveal-pervasive-overcharges>.
- Timbie, J. W., A. Bogart, C. L. Damberg, et al. 2017. Medicare Advantage and fee-for-service performance on clinical quality and patient experience measures: Comparisons from three large states. *Health Services Research* 52, no. 6 (December): 2038–2060.

CHAPTER

14

**The Medicare prescription
drug program (Part D):
Status report**

The Medicare prescription drug program (Part D): Status report

Chapter summary

In 2018, Part D plans were the primary source of outpatient prescription drug coverage for 43.9 million Medicare beneficiaries. Medicare subsidizes about three-quarters of the cost of basic benefits. Part D also includes a low-income subsidy (LIS) that provides assistance with premiums and cost sharing to 12.5 million individuals with low income and assets. In 2017, Part D expenditures totaled \$93.9 billion, accounting for about 13 percent of Medicare spending. Enrollees paid \$14.0 billion of that amount in plan premiums, in addition to what they paid in cost sharing.

Part D has been a success in many respects. It has improved beneficiaries' access to prescription drugs. Generic drugs now account for nearly 90 percent of the prescriptions filled. Enrollees' average premiums for basic benefits have remained around \$30 per month for many years. More than 8 in 10 Part D enrollees report they are satisfied with the program.

However, changes to Part D's coverage gap and manufacturer discounts combined with the expanding role of high-cost medicines may be eroding plans' incentives for and ability to achieve cost control. Over time, as more enrollees have reached the catastrophic phase of the benefit, a growing share of Medicare's payments to plans have taken the form of cost-based reinsurance subsidies rather than capitated payments. This trend is exacerbated by a pipeline of new products that are likely to have high costs. Beginning in

In this chapter

- Enrollment, plan choices in 2018, and benefit offerings for 2019
- Plan sponsors and their tools for managing benefits and spending
- Drug pricing
- Program costs
- Beneficiaries' access to prescription drugs
- Quality in Part D

2019, brand-drug manufacturers must provide a 70 percent discount in the coverage gap (an increase from 50 percent). This change correspondingly decreases what plan sponsors must cover in benefits and likely weakens sponsors' incentives to manage spending. A separate concern is that Part D's LIS may lead to plan and beneficiary incentives that increase program costs.

Policymakers are taking steps to give plan sponsors new flexibilities to manage drug spending. For example, CMS now allows for certain midyear formulary changes without prior approval, and Medicare Advantage–Prescription Drug [plans] (MA–PDs) can use step therapy—a type of management tool that begins treatment with the most preferred drug therapy and progresses to other therapies only if necessary—for Part B drugs under certain circumstances. However, other measures to increase the financial risk that sponsors bear (such as those recommended by the Commission in 2016) are also needed so that plan sponsors have greater incentive to use the new management tools and keep Part D financially sustainable for beneficiaries and taxpayers.

Enrollment in 2018 and benefit offerings for 2019—In 2018, 73.3 percent of Medicare beneficiaries were enrolled in Part D plans. An additional 2.5 percent obtained drug coverage through employer-sponsored plans that received Medicare's retiree drug subsidy. The remaining 24.2 percent were divided roughly equally between those who had creditable drug coverage from other sources and those with no coverage or coverage less generous than Part D.

Between 2007 and 2018, enrollment grew faster in MA–PDs compared with stand-alone prescription drug plans (PDPs). In 2018, 42 percent of enrollees were in MA–PDs compared with 30 percent in 2007. Over the same period, the number of enrollees who received the LIS grew more slowly than non-LIS enrollees, and the LIS share fell from 39 percent to 28 percent.

For 2019, beneficiaries continue to have a broad choice of plans. Sponsors are offering 15 percent more PDPs and 21 percent more MA–PDs than in 2018. MA–PDs continue to be more likely than PDPs to offer enhanced benefits. Most beneficiaries are in plans with a five-tiered formulary that uses differential cost sharing between preferred and nonpreferred drugs, as well as a specialty tier for high-cost drugs. Use of coinsurance continues to be widespread. For 2019, the total average estimated cost for basic benefits decreased by 5 percent. The higher brand manufacturer discount in the coverage gap and lower covered benefits likely contributed to this decrease. The base beneficiary premium was \$33.19, a 5 percent drop from \$35.02 in 2018. However, individual plans' premiums can vary substantially. In 2019, 215 premium-free PDPs are available to enrollees who receive the LIS, about the same number as in 2018.

With the exception of 1 region (Florida), all regions have at least 3 and as many as 10 PDPs for LIS enrollees at no premium.

Part D program costs—Between 2007 and 2017, Part D program spending increased from about \$46 billion to about \$80 billion (average annual growth of 5.6 percent). Medicare’s reinsurance (which covers 80 percent of enrollees’ spending in the catastrophic phase of the benefit after rebates) continues to be the fastest growing component of program spending, at an average annual rate of nearly 17 percent. Between 2007 and 2017, the portion of the benefits paid to plans through capitated direct subsidy fell from 55 percent to 21 percent, while the portion paid through Medicare’s reinsurance (which is cost based) grew from 25 percent to 54 percent. Enrollees who incur spending high enough to reach the catastrophic phase of the benefit (high-cost enrollees) continued to drive Part D spending. In 2016, high-cost enrollees accounted for 58 percent of all Part D spending, up from about 40 percent before 2011. Generally, prices paid at the pharmacy counter moderated after 2015. However, price growth remained strong in drug classes that have few or no generic or therapeutic alternatives. Among high-cost enrollees, nearly all growth in spending was due to increases in the average price per prescription filled (reflecting both price inflation and changes in the mix of drugs used). In 2016, about 360,000 enrollees filled a prescription for which a single claim would have been sufficient to meet the out-of-pocket threshold, up from just 33,000 in 2010. Non-LIS beneficiaries were more likely to have such a claim, reflecting the fact that they tend to use different drug classes from LIS enrollees.

Quality in Part D—In 2019, the average star rating among Part D plans decreased somewhat for PDPs and remained about the same for MA–PDs. However, the trend among MA–PD sponsors of consolidating contracts to achieve higher star ratings leads us to question the validity of MA–PD ratings and the comparison between PDPs and MA–PDs. It is not clear that current quality metrics help beneficiaries make informed choices among their plan options. In the past, the Commission has expressed concerns about the effectiveness of plans’ medication therapy management (MTM) programs to improve the quality of pharmaceutical care due to the lack of financial incentives for sponsors of stand-alone PDPs. In 2017, CMS implemented the enhanced MTM program that rewards PDPs for reducing medical spending. Initial results indicate that half of the participating plans (11 out of 22 plans) successfully reduced medical spending by 2 percent or more, qualifying them for a higher premium subsidy in 2019. We are encouraged by the initial results and look forward to learning about the characteristics of MTM programs that enabled PDPs to improve pharmaceutical care and health outcomes for beneficiaries. ■

Background

Each year, the Commission provides a status report on Part D that examines several performance indicators: enrollment patterns, plan benefit offerings, market structure, drug pricing, program costs, beneficiaries' access to medications, and quality. In 2018, Part D plans were the primary source of outpatient prescription drug coverage for 43.9 million Medicare beneficiaries. For each of those enrollees, Medicare subsidizes about three-quarters of the cost of basic benefits, defined as Part D's standard benefit or benefits with the same average value. Part D also includes a low-income subsidy (LIS) that provides assistance with premiums and cost sharing to 12.5 million individuals with low income and assets. In 2017, Part D expenditures totaled \$93.9 billion on an incurred basis, accounting for about 13 percent of Medicare spending (Boards of Trustees 2018). Part D enrollees paid \$14.0 billion of that amount in plan premiums, in addition to what they paid in cost sharing.

In a number of ways, Part D has been a success. Since 2006 when it began, the program has improved Medicare beneficiaries' access to prescription drugs; from 2006 to 2017, the share with Part D or drug coverage at least as generous as Part D increased from 75 percent to 88 percent. Stand-alone prescription drug plans (PDPs) and Medicare Advantage–Prescription Drug [plans] (MA–PDs) are available in every region of the country. Nearly 90 percent of Part D prescriptions filled are for generic drugs, which tend to have lower prices and cost sharing than brand-name drugs. Enrollees' average premiums for basic benefits have remained flat at or near \$30 per month for many years, and more than 8 in 10 Part D enrollees report they are satisfied with the program and with their plan (*Medicare Today* 2018).

However, changes to Part D's benefit design combined with recent trends in prescription drug spending may be eroding plans' incentives for cost control. Initially, most of Medicare's subsidies to Part D plans took the form of fixed-dollar payments per enrollee, giving plan sponsors strong incentives to manage benefit spending. Over time, a growing share of Part D subsidies have taken the form of cost-based reimbursements to plans. This trend results from higher drug prices that increase Medicare's liability for the 80 percent reinsurance as an increasing number of enrollees reach a threshold on out-of-pocket (OOP) spending. A growing proportion of total Part D

drug spending is attributable to the relatively few enrollees who reach the catastrophic phase. Going forward, this trend will be exacerbated by a pipeline for new high-cost biopharmaceutical products. Policymakers are taking steps to give plan sponsors new flexibilities to manage Part D benefits. However, other measures to restructure Part D's reinsurance—such as those recommended by the Commission in 2016—are also needed so that plan sponsors have greater incentive to use the new management tools.

Part D's approach

Medicare's payment system for Part D is different from payment systems under Part A and Part B. For Part D, Medicare pays competing private plans to deliver drug benefits to enrollees. Instead of setting prices administratively, Medicare's payments are based on bids submitted by plan sponsors. Part D pays for drug benefits whether beneficiaries enroll in a PDP or MA–PD.

Part D plan sponsors compete to attract enrollees through low premiums, but sponsors do not set their premiums directly. Instead, sponsors submit bids to CMS that represent their revenue requirements (including administrative costs and profit) for delivering basic benefits to an enrollee of average health. CMS then calculates a nationwide enrollment-weighted average among all the bid submissions. From this average, enrollees pay a portion as a base beneficiary premium (\$33.19 in 2019) plus (or minus) any difference between their plan's bid and the nationwide average bid (Medicare Payment Advisory Commission 2018b). If enrollees pick a plan that includes supplemental coverage, the enrollee must pay the full price for the additional coverage (i.e., Medicare does not subsidize it). This approach is designed to give sponsors the incentive to control enrollees' spending so that they can bid low and keep premiums attractive. At the same time, sponsors must balance this incentive with beneficiaries' desire to have access to medications. A plan with a very limited number of covered drugs might not attract enrollees.

A second avenue of competition involves keeping plan premiums at or below regional LIS benchmarks. Part D's bidding process determines the maximum premium amount Medicare will pay on behalf of LIS enrollees. This amount is calculated separately for each of the 34 Part D geographic regions as the average premium among plans with basic benefits, weighted by each plan's LIS enrollment in the previous year. The formula ensures that

**TABLE
14-1****Parameters of the defined standard benefit increase over time**

	2006	2018	2019	Average annual growth rate 2006–2019
Deductible	\$250.00	\$405.00	\$415.00	4.0%
Initial coverage limit	2,250.00	3,750.00	3,820.00	4.2
Annual out-of-pocket spending threshold	3,600.00	5,000.00	5,100.00	2.7
Total covered drug spending at annual out-of-pocket threshold	5,100.00	8,417.60*	8,139.54*	3.7
Minimum cost sharing above annual out-of-pocket threshold:**				
Copayment for generic/preferred multisource drugs	2.00	3.35	3.40	4.2
Copayment for other prescription drugs	5.00	8.35	8.50	4.2

Note: *An individual's total covered drug spending at the annual out-of-pocket threshold depends on each enrollee's mix of brand-name and generic drugs filled in the coverage gap. The amounts for 2018 and 2019 are estimated by CMS for an individual with an average mix of drugs who does not receive Part D's low-income subsidy and who has no other supplemental coverage. The amount for 2019 is lower because of a change in law that causes 95 percent of an enrollee's spending for brand-name drugs in Part D's coverage-gap phase to count toward the out-of-pocket threshold, compared with 85 percent in 2018.

**Enrollees pay the greater of either the amounts shown or 5 percent coinsurance.

Source: Centers for Medicare & Medicaid Services 2018d.

at least one stand-alone PDP in each region is available to LIS enrollees at no premium.

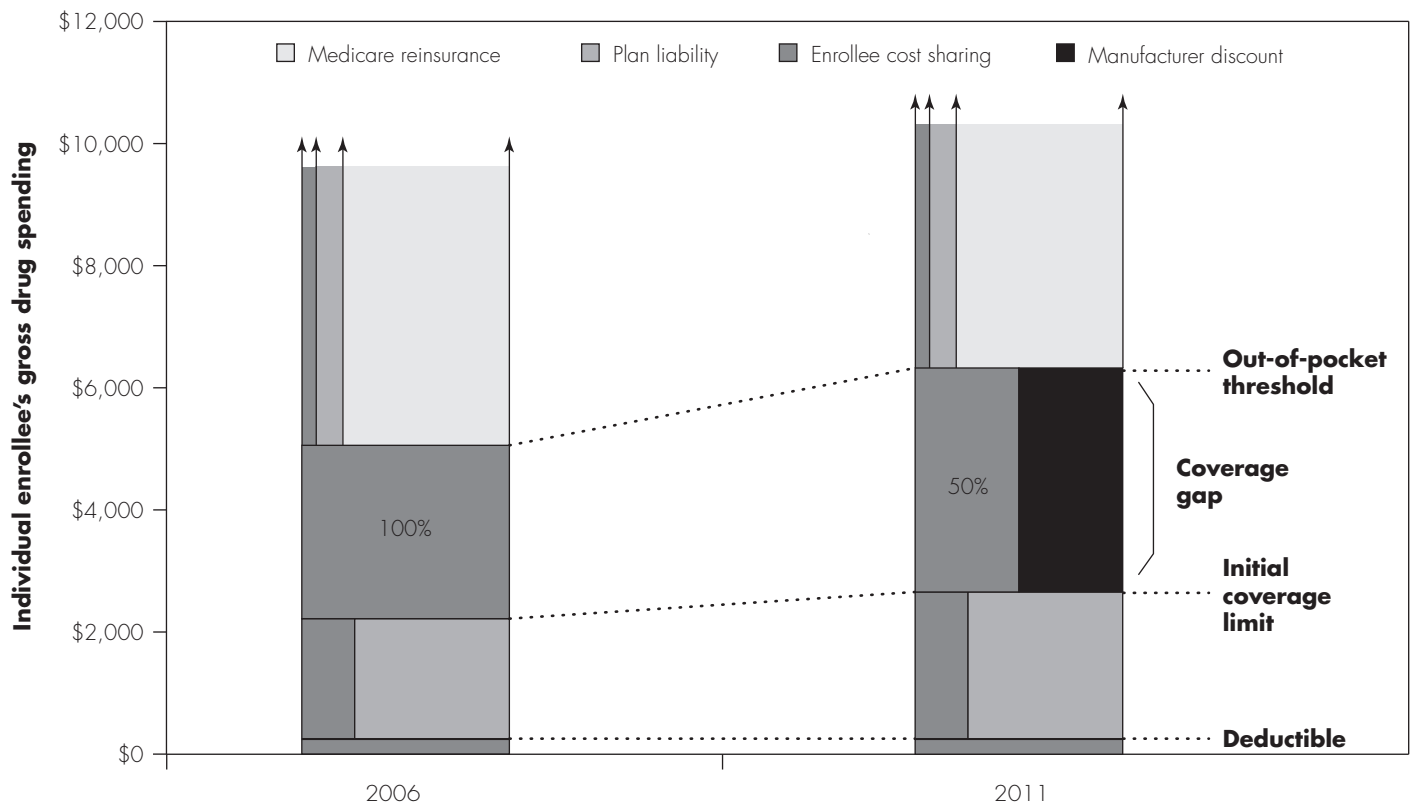
This approach to setting Part D's LIS premium subsidy was also intended to provide incentives for plan sponsors to control drug spending and bid low. Each year, there is some turnover in benchmark plans—those that qualify as premium free for LIS enrollees. If LIS enrollees are in a PDP with a premium above the benchmark and do not choose a plan themselves, CMS reassigns them randomly to a new benchmark PDP.¹ If sponsors bid at or near the benchmark, they can win or maintain market share for LIS enrollees without having to incur marketing expenses.² However, over the years many LIS enrollees have chosen a specific plan and are no longer eligible for reassignment. Many of the plans offered by certain large plan sponsors have kept their benchmark status from year to year. For 2018, only about 175,000 beneficiaries—less than 2 percent of all LIS enrollees enrolled in PDPs—were reassigned randomly (Lyons 2018).

The drug benefit

Medicare law describes a defined standard Part D basic benefit. Each year, most of the standard benefit's parameters change at the same rate as the annual change in beneficiaries' average drug expenses (Table 14-1).

For 2019, the defined standard benefit includes a \$415 deductible and 25 percent coinsurance until the enrollee reaches \$3,820 in total covered drug spending. Enrollees with spending above that amount (in the so-called coverage gap) pay 25 percent cost sharing for brand-name drugs and 37 percent for generics until they reach a threshold of \$5,100 in OOP spending. Above the OOP threshold, enrollees pay the greater of 5 percent coinsurance or \$3.40 to \$8.50 per prescription. By law, individuals who qualify for and enroll in Part D's LIS pay zero or nominal cost sharing. In 2019, most individuals receiving the LIS pay between \$0 and \$3.40 for generic drugs and between \$0 and \$8.50 for brand-name drugs.

Most plan sponsors structure their basic benefits in ways that differ from the defined standard benefit, such as setting the deductible lower than \$415 or using tiered copayments rather than coinsurance. Plans may also encourage use of lower cost medicines by not applying a deductible when a prescription is filled with certain preferred generics. However, those alternative benefit structures must meet requirements for actuarial equivalence, demonstrating that they have the same average basic-benefit value as the defined standard benefit for a beneficiary of average health. CMS also sets maximum cost-sharing amounts for drug tiers to ensure that a sponsor's plan design is not discriminatory.³ Once

**FIGURE
14-1****Part D's defined standard benefit before and after introduction of the manufacturers' discount on brand-name drugs in the coverage gap**

Note: "Gross drug spending" refers to amounts paid at the pharmacy before rebates and discounts. The coverage-gap phase (between the initial coverage limit and out-of-pocket threshold) is depicted as it would apply to brand-name drugs for an enrollee who does not receive Part D's low-income subsidy (LIS). Non-LIS enrollees' cost sharing for generic drugs in the coverage gap was 100 percent in 2006 and 93 percent in 2011.

Source: MedPAC depiction of Part D benefit structure as set by law.

a sponsor offers a PDP with basic benefits in a region, it can also offer up to two "enhanced-alternative" PDPs that combine basic benefits with supplemental coverage. For 2019, estimated OOP costs between a sponsor's basic and enhanced plans must differ by at least \$22 per month. CMS no longer requires plan sponsors to maintain a meaningful difference in OOP costs between two enhanced-alternative PDPs.

Changes to Part D's coverage gap

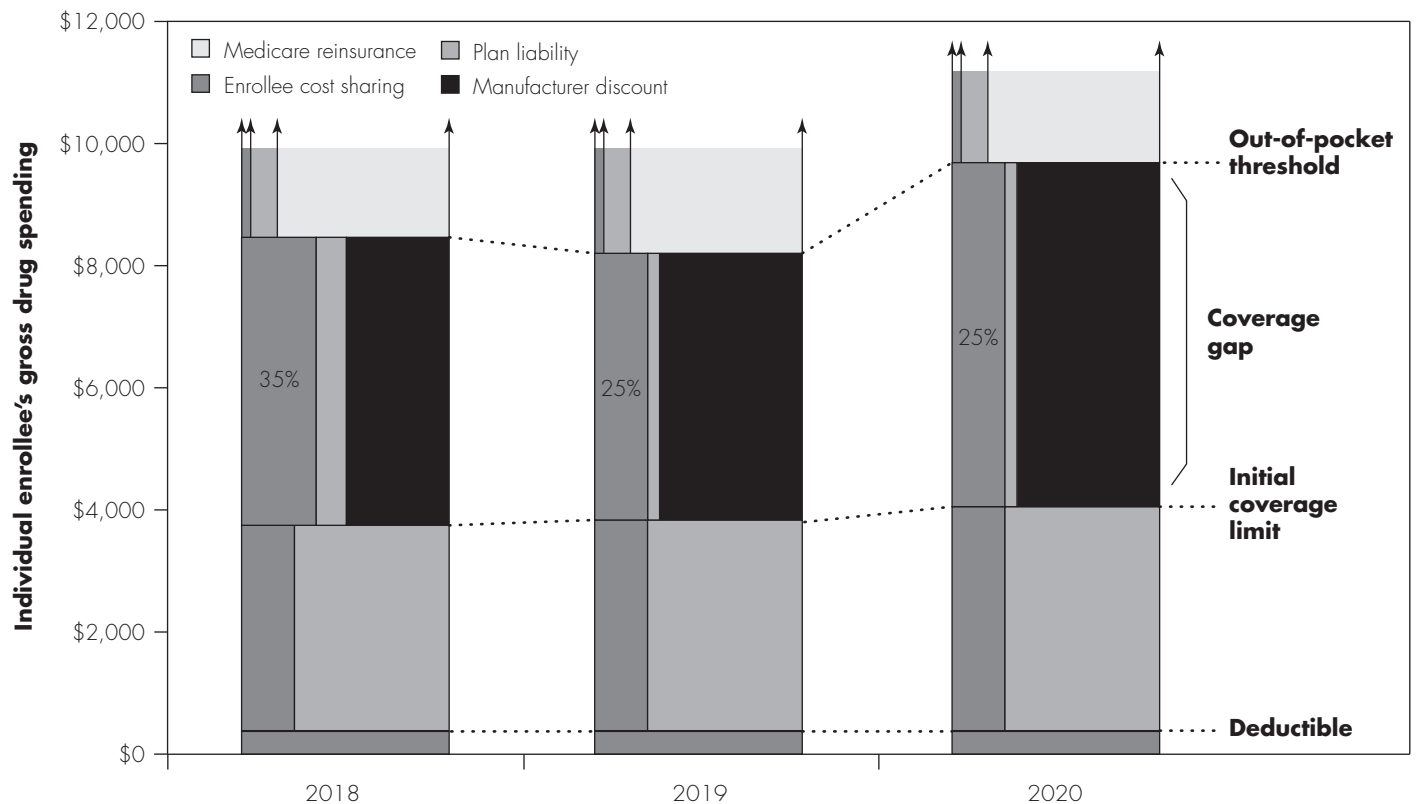
The policymakers who designed Part D wanted to provide both basic coverage for most enrollees who have relatively low drug spending as well as some catastrophic protection for enrollees with high drug costs. For this reason, the defined standard basic benefit initially covers 75 percent

of drug spending above the deductible and all but 5 percent coinsurance once an enrollee reaches the OOP threshold. That threshold is known as "true OOP" because it excludes cost sharing paid on behalf of a beneficiary by most sources of supplemental coverage, such as employer-sponsored policies and enhanced-alternative plan benefits.

However, the policymakers who designed Part D also needed to keep program costs within an agreed-on spending target (Blum 2009). For this reason, before 2011, enrollees with spending that exceeded the initial coverage limit were responsible for paying a prescription's full price at the pharmacy up to the OOP threshold. That is, the enrollee's cost sharing rose from 25 percent in the initial coverage phase to 100 percent until he or she reached the OOP threshold (left-hand side of Figure 14-1). A number

**FIGURE
14-2**

Part D's discount on brand-name drugs in the coverage gap and defined standard benefit structure has changed over time



Note: "Gross drug spending" refers to amounts paid at the pharmacy before postsale rebates and discounts. The amount of drug spending at which a beneficiary reaches the out-of-pocket (OOP) threshold depends on the mix of brand-name and generic prescriptions he or she fills in the coverage gap. The coverage-gap phase (between the initial coverage limit and OOP threshold) is depicted as it would apply to brand-name drugs for an enrollee who does not receive Part D's low-income subsidy (LIS). Non-LIS enrollees' cost sharing for generic drugs in the coverage gap was 44 percent in 2018, is 37 percent in 2019 and will be 25 percent in 2020.

Source: MedPAC depiction of Part D benefit structure as set by law.

of studies suggested that higher cost sharing in this coverage gap (also called the "donut hole") decreased rates of medication adherence, primarily for brand-name drugs (Fung et al. 2010, Yu et al. 2016, Zhang et al. 2013, Zhang et al. 2009). Compared with commercial insurance, Part D's benefit structure is unusual because of the coverage gap.

The coverage gap affects enrollees' OOP spending differently depending on whether the beneficiary receives the LIS. Under law, LIS enrollees experience no coverage gap; Medicare's low-income cost-sharing subsidy pays for 100 percent of most enrollees' costs during the coverage-

gap phase minus their nominal copayments. Manufacturers of brand-name drugs are not required to pay any discount for LIS enrollees during the coverage gap, and plan sponsors are not liable for covered benefits until the LIS enrollee reaches the OOP threshold. Although Part D's cost-sharing assistance offsets the higher burden that LIS enrollees would otherwise face, the current structure of the subsidies may be creating plan and beneficiary incentives that lead to higher program costs (see text box, p. 394).

The Patient Protection and Affordable Care Act of 2010 (PPACA) called for gradually lowering cost sharing in the coverage gap from 100 percent to 25 percent by

2020 and for constraining annual increases in the OOP threshold. To finance much of this expansion of benefits without directly raising enrollee premiums and program spending, PPACA required manufacturers of brand-name drugs, as a condition of Part D coverage, to provide non-LIS enrollees with a 50 percent discount on prescriptions filled during the coverage-gap phase (right-hand side of Figure 14-1, p. 391). As a result, in 2011, cost sharing in the coverage gap for brand prescriptions immediately fell from 100 percent to 50 percent. Over time, plans' liability for benefit spending on brand-name drugs in the coverage gap rose from 0 percent in 2011 to 25 percent by 2020.⁴ The law also required that the manufacturers' discount be counted as though it were the enrollee's own OOP spending for calculating the "true OOP" amount. That change lowered OOP costs for some beneficiaries but also increased the number of non-LIS enrollees who reached the OOP threshold above which Medicare pays 80 percent of spending through reinsurance.

The Bipartisan Budget Act (BBA) of 2018 changed Part D to phase out the coverage gap more quickly by increasing the manufacturers' discount from 50 percent to 70 percent. In 2019, enrollees who reach the coverage gap pay 25 percent cost sharing for brand-name drugs until they reach the OOP threshold compared with 35 percent in 2018 (Figure 14-2). Because the 70 percent discount is counted as though it were the enrollee's own spending, CMS estimates the dollar amount at which a non-LIS enrollee reaches the OOP threshold will be lower in 2019 than it was in 2018. This decrease means that more enrollees are likely to reach Part D's catastrophic phase, in which Medicare pays 80 percent reinsurance. In 2020 and thereafter, beneficiaries enrolled in plans with basic benefits will pay the equivalent of 25 percent cost sharing for all drugs (generics as well as brand name) between the deductible and the OOP threshold.

In the Commission's March 2017 report, we highlighted how Part D's unique benefit design, Medicare's cost-based reinsurance payments, and plan sponsors' focus on premium competition can affect incentives regarding which drugs a plan covers on its formulary (Medicare Payment Advisory Commission 2017). Because plan sponsors are not liable for much benefit spending in the coverage gap, Part D's structure may provide a financial advantage to sponsors when they select certain drugs with high prices and large postsale rebates over lower cost alternatives. The dollar amount of rebates for certain drugs can be larger than a plan sponsor's liability for the associated benefit spending.

Recent changes to the coverage gap heighten those concerns. In 2019, plan sponsors cover just 5 percent of spending for brand prescriptions filled in the gap phase. By comparison, CMS's Office of the Actuary projects that plan sponsors will obtain postsale rebates and discounts worth about 26 percent of total drug costs (Boards of Trustees 2018). In its 2019 call letter to plan sponsors, CMS said it has significant concerns about the effects of the higher coverage-gap discount and low plan liability on Part D drug costs in 2019 and in future years (Centers for Medicare & Medicaid Services 2018d).

In 2020, a PPACA provision will again change Part D's benefit structure: The OOP threshold will increase by more than 20 percent (Figure 14-2). As part of the law's effort to close the coverage gap, PPACA temporarily restrained increases in the OOP threshold. (Between 2006 and 2019, the threshold grew by 2.7 percent compared with 4.0 percent for the deductible and 4.2 percent for the initial coverage limit (Table 14-1, p. 390).) The law requires that in 2020, the OOP threshold revert to what it would have been had it grown at the same rate as other benefit parameters.⁵ While it would appear that enrollees will incur much higher OOP spending before reaching the higher threshold, the increase in the brand manufacturer's discount will absorb a considerable portion of that increase.⁶

Over the past year, CMS has made other regulatory changes to Part D, many of which will broaden plan sponsors' flexibility to manage their enrollees' benefits. However, other measures to increase the financial risk that sponsors bear are also needed so that plan sponsors have greater incentive to use the new management tools. As more of Medicare's subsidy payments to plans have taken the form of cost-based reinsurance, plan premiums do not necessarily reflect sponsors' actual cost of providing Part D benefits or how effective sponsors are at managing drug spending. One recent study found that because of Part D's reinsurance, some plan sponsors are able to charge low premiums even though they expect high drug spending in the catastrophic phase of the benefit (Jung and Feldman 2018).⁷ If lower premiums do not correspond to better management of benefit costs, then the competitive structure of the Part D program may not provide plan sponsors with the incentive to manage spending, particularly for the catastrophic phase of the benefit. Part D's cost-based reinsurance payments reduce plan sponsors' incentive to manage spending in that phase.

How Part D's low-income subsidy affects plan incentives and program costs

Part D's benefit structure is fundamentally different for enrollees who receive the low-income subsidy (LIS). Copayments for LIS enrollees are set by law, and plan sponsors cannot encourage the use of lower cost drugs in the same way that sponsors encourage non-LIS enrollees through differential copayments on cost-sharing tiers. In the coverage-gap phase, a plan's responsibility for paying an LIS enrollee's covered drug benefit costs is reduced to zero. At the same time, plan sponsors likely receive postsale rebates on brand-name prescriptions filled by LIS enrollees. These distinct benefit features for LIS enrollees tend to undermine both plans' ability to manage drug spending and their incentives for cost control.

A plan qualifies as having LIS benchmark status solely on the basis of whether the plan sponsor bids at or below a regional premium threshold. Like other plans, those with benchmark status must demonstrate that their benefit design uses cost sharing that, for a beneficiary of average health, is actuarially equivalent to Part D's defined standard benefit. For example, during the initial coverage phase, beneficiary cost sharing is expected to average about 25 percent of drug costs (before retrospective rebates and discounts). Ideally, sponsors of benchmark plans would want to manage all LIS benefits to keep premium costs down and bid below or near regional premium thresholds.

However, some evidence raises questions about the strength of sponsors' financial incentives to manage LIS drug spending. Research suggests that plan sponsors may bid less competitively for their prescription drug plans (PDPs) that cater to LIS enrollees than their other plans, with premiums clustered at or near the benchmark premiums of sponsors that have the largest LIS market shares

(Congressional Budget Office 2014, Decarolis 2015). One study found that LIS enrollees were, on average, more profitable for plan sponsors compared with enrollees who did not receive the LIS (Gomberg and Hunter 2015). In previous reports, the Commission has found that, relative to other Part D enrollees, a higher proportion of LIS enrollees use brand-name drugs when lower cost alternatives are available (Medicare Payment Advisory Commission 2016a). Given that plan sponsors cannot modify LIS cost sharing, one might expect, as an alternative, tighter formularies in benchmark plans or greater use of tools such as prior authorization. However, when CMS analyzed benchmark plans for 2013 through 2016, the agency found only slightly tighter formularies and similar use of utilization management tools (Centers for Medicare & Medicaid Services 2016).

In addition, our examination of PDP claims shows that, in 2015, plans with higher proportions of LIS enrollees tended to cover a lower share of their enrollees' spending and charged a higher percentage in cost sharing. We divided PDPs into groups depending on the share of their enrollees who received the LIS and then examined cost sharing and covered benefit amounts from prescriptions filled during the initial coverage phase. Among PDPs in which two-thirds or more of their enrollees received the LIS, cost sharing averaged 28 percent, compared with about 24 percent among PDPs with less than 10 percent of plan enrollment made up of LIS beneficiaries. For similar levels of drug spending, Medicare's low-income cost-sharing subsidy paid for a higher share of total drug costs compared with plans that mostly served non-LIS beneficiaries. This pattern deserves further exploration to ensure that sponsors do not structure plan benefits and formularies in ways that routinely shift costs toward Medicare. ■

The Commission's recommendations for improving Part D

In its June 2016 report to the Congress, the Commission recommended certain changes to the Part D program (Medicare Payment Advisory Commission 2016a). To address the concern about growth in Medicare's

reinsurance payments, one set of changes would give plan sponsors greater financial incentives to manage the benefits of enrollees who reach Part D's catastrophic phase (referred to as "high-cost enrollees"), which would require a change in law. Over a transition period, Medicare would significantly lower the amount of reinsurance it

pays plans, from 80 percent of spending above the OOP threshold to 20 percent, and the insurance risk that plan sponsors shoulder for catastrophic spending would rise commensurately, from 15 percent to 80 percent. At the same time that Medicare reduced its reinsurance, the program would make larger capitated payments to plan sponsors. Medicare's subsidy of basic benefits would remain unchanged at 74.5 percent, but sponsors would receive more of that subsidy through capitated payments instead of open-ended reinsurance (i.e., plan sponsors would submit higher bids and lower estimates for the expected reinsurance costs). Under such a change, Part D's risk adjusters would become more important as a tool for counterbalancing plan incentives for selection. CMS would need to take steps to recalibrate the risk adjustment system. At the same time, sponsors would be given greater flexibility to use formulary tools.⁸ The combination of those changes would create incentives for plan sponsors to better manage drug spending and would provide them with more tools to do so.

Other parts of the Commission's recommendations would exclude manufacturer discounts on brand-name drugs from counting as enrollees' true OOP spending, but would also provide greater insurance protection to all enrollees not receiving the LIS by eliminating cost sharing above the OOP threshold (although some enrollees would incur higher OOP costs than they do today). To the extent that the adoption of the Commission's set of recommendations results in net program savings, the Congress could consider enhancing protections for non-LIS enrollees facing high cost-sharing burdens. Because Part D's nominal cost-sharing amounts provide little financial incentive for LIS enrollees to use lower cost products, the recommended improvements would also direct the Secretary of Health and Human Services to modify some LIS copayments.

In 2016, the Congressional Budget Office estimated that the combined effects of the Commission's recommendations would lead to one-year program savings of more than \$2 billion relative to baseline spending and to more than \$10 billion in savings over five years.

Enrollment, plan choices in 2018, and benefit offerings for 2019

Over time, a growing proportion of Medicare beneficiaries has enrolled in Part D. An important

**TABLE
14-2**

Three-quarters of Medicare enrollees received drug coverage through Part D, 2018

	Beneficiaries	
	In millions	Share of Medicare enrollment
Medicare enrollment	59.9	100%
Part D enrollment*		
In Part D plans	43.9	73.3
In plans receiving RDS	1.5	2.5
Total Part D	45.4	75.8**

Note: RDS (retiree drug subsidy). Part D plan enrollment figures are based on enrollment as of April 1, 2018.

*Excludes federal government and military retirees covered by either the Federal Employees Health Benefits Program or the TRICARE for Life program.

**The remaining 24.2 percent of beneficiaries not enrolled in Part D are divided fairly equally between those who receive drug coverage through other sources (such as the Federal Employees' Health Benefits Program, TRICARE for Life, and the Department of Veterans Affairs) and those who had no drug coverage or had coverage less generous than Part D.

Source: MedPAC based on Table IV.B7 and Table V.B4 of the Medicare Boards of Trustees' report for 2018 and monthly Part D enrollment data as of April 1, 2018.

reason is a shift in enrollment from retiree drug plans to Part D plans. Enrollment has grown faster in MA-PDs compared with stand-alone PDPs. In 2019, plan sponsors are offering 15 percent more PDPs and 21 percent more MA-PDs than in 2018.

In 2018, over three-quarters of Medicare beneficiaries were in Part D plans or employer plans that received the retiree drug subsidy

In 2018, 43.9 million individuals—73.3 percent of Medicare's total enrollment—were enrolled in Part D plans (Table 14-2). An additional 2.5 percent of beneficiaries obtained drug coverage through employer-sponsored plans that received Medicare's retiree drug subsidy (RDS) for being the primary provider.⁹ The remaining 24.2 percent of Medicare beneficiaries were divided roughly equally between those who had creditable drug coverage from other sources and those with no coverage or coverage less generous than Part D.

**TABLE
14-3****Part D plan enrollment trends, 2007–2018**

	2007	2010	2015	2016	2017	2018	Average annual growth rate 2007–2018
Total Part D enrollment (in millions)	24.2	27.6	39.2	41.0	42.5	43.9	6%
Percent of Medicare beneficiaries	54%	58%	71%	72%	73%	73%	N/A
Enrollment by type (in millions)							
PDP	16.9	17.6	24.0	24.7	25.1	25.4	4
MA–PD	7.2	10.0	15.3	16.3	17.4	18.5	9
Percent in MA–PD	30%	36%	39%	40%	41%	42%	N/A

Note: N/A (not applicable), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), N/A (not applicable). Figures are based on enrollment as of April 1 of each year with the exception of 2007 (enrollment as of July 1, 2007).

Source: MedPAC based on Part D enrollment data and Table IV.B7 and Table V.B4 of the Medicare Boards of Trustees’ report for 2018.

The share of Medicare beneficiaries covered under Part D has grown over time, with faster growth in MA–PD enrollment. Between 2007 and 2018, Part D enrollment grew from 54 percent of Medicare beneficiaries to 73 percent, an average growth of 6 percent annually (Table 14-3). Enrollment in MA–PDs grew an average of 9 percent annually compared with 4 percent in PDPs. In 2018, 42 percent of Part D enrollees were in MA–PDs compared with 30 percent in 2007. This trend in MA–PD enrollment is consistent generally with more rapid growth in MA enrollment than in fee-for-service (FFS) Medicare (see Chapter 13 on Medicare Advantage).

In 2018, 12.5 million beneficiaries with income at or below 150 percent of the federal poverty level (28 percent of Part D enrollees) received the LIS (data not shown). Of these individuals, 8 million were eligible for both Medicare and full Medicaid benefits. The remaining LIS enrollees qualified either because they received benefits through the Medicare Savings Programs or Supplemental Security Income program or because they were eligible after they applied directly to the Social Security Administration. Compared with non-LIS enrollees, LIS enrollees are more likely to be female; more than twice as likely to be African American, Hispanic, or Asian; and over four times more likely to be under age 65 (Medicare Payment Advisory Commission 2018a).

Between 2007 and 2018, enrollment growth for Part D enrollees who received the LIS was slower (3 percent

per year) than for non-LIS enrollees (7 percent per year) (data not shown). The faster growth in enrollment of non-LIS enrollees is partly attributable to the recent growth in employer group waiver plans that reflects a shift from employers operating plans that receive the RDS to sponsoring Part D plans for their retirees.¹⁰ Consequently, the share that received the LIS fell from 39 percent to 28 percent. In 2018, about 61 percent (7.6 million) of LIS enrollees were in PDPs; the rest were in MA–PDs (data not shown). Although most individuals receiving the LIS are enrolled in traditional Medicare rather than Medicare Advantage (MA), LIS enrollment in MA–PDs has grown.

Beneficiaries’ enrollment decisions in 2018

Most enrollees are in plans that are actuarially equivalent to Part D’s defined standard benefit or are enhanced in some way. Enrollees in MA–PDs tend to have more generous benefits than beneficiaries enrolled in PDPs—in part because MA–PD plan sponsors are permitted to use a portion of their MA (Part C) payments to supplement their Part D benefits.

MA–PD enrollees are more likely to be in enhanced plans than PDP enrollees

In 2018, 60 percent of PDP enrollees had basic coverage that was actuarially equivalent to the defined standard benefit, most with tiered copayments (Table 14-4). The remaining 40 percent of PDP enrollees had enhanced benefits. No PDP enrollees were in defined standard

**TABLE
14-4**

MA-PD enrollees more likely to be in enhanced plans, 2018

	PDP		MA-PD	
	Number of enrollees (in millions)	Percent	Number of enrollees (in millions)	Percent
Total	20.8	100%	12.7	100%
Type of benefit				
Defined standard	0.0	0	0.1	<0.5
Actuarially equivalent*	12.4	60	0.5	4
Enhanced	8.4	40	12.1	96
Type of deductible				
Zero	9.4	45	5.4	43
Reduced	1.9	9	6.9	54
Defined standard**	9.5	46	0.4	3

Note: MA-PD (Medicare Advantage–Prescription Drug [plan]), PDP (prescription drug plan). The MA-PD enrollment described here excludes employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B-only plans. Components may not sum to stated totals due to rounding.

*Includes actuarially equivalent standard and basic alternative benefits.

**Deductible of \$405 in 2018.

Source: MedPAC analysis of CMS landscape, plan report, and enrollment data.

benefit plans because plan sponsors offered none. MA-PD enrollees were overwhelmingly in enhanced plans. In both plan types, the typical enhancement was having no deductible or a deductible smaller than that used for Part D's defined standard benefit. In PDPs and MA-PDs, 45 percent and 43 percent of enrollees, respectively, had no deductible in their plans' benefit designs.

Under the MA payment system, MA-PD plan sponsors may use a portion of their Part C payments to supplement Part D drug benefits (e.g., by lowering deductibles) or to lower Part D premiums.¹¹ For 2019, MA-PD plan sponsors applied on average more than \$32 per month (29 percent) of their Part C rebate dollars to Part D benefits. That amount was divided nearly evenly between lowering enrollees' Part D premiums and supplementing their drug benefits.

Average enrollee premiums remained flat in 2018

Despite significant growth in catastrophic benefits, average premiums for basic Part D benefits have remained low. (Low premiums in part reflect the effects of Medicare's reinsurance subsidy, which has offset benefit spending

that would otherwise have increased plan sponsors' bids. See pp. 410–411 for more detail on plan bids and enrollee premiums.) In 2018, monthly beneficiary premiums averaged about \$32 across all types of plans (basic and enhanced), and average premiums have remained around \$30 per month since 2010. However, underlying that average is wide variation in premiums from \$0 for many MA-PDs to \$197 per month for one PDP offering enhanced coverage.

On average, premiums were lower for beneficiaries enrolled in MA-PDs compared with those enrolled in PDPs, in part reflecting plan sponsors' use of Part C rebate dollars. In 2018, the average monthly premium for an MA-PD enrollee was \$18, with an additional \$16 of premium costs paid through Part C rebates (Medicare Payment Advisory Commission 2018a). By comparison, PDP enrollees paid an average of \$41 per month.

Two other factors affect the premium amounts paid by a given enrollee. First, higher income beneficiaries have a lower federal subsidy of their Part D benefits. In 2018, 2.9 million Part D enrollees (over 6 percent) were subject to the income-related premium (Liu 2018).

**TABLE
14-5****MA-PDs are more likely to offer enhanced benefits than PDPs, 2019**

	PDP		MA-PD	
	Number of plans	Percent	Number of plans	Percent
Total	901	100%	2,414	100%
Type of benefit				
Defined standard	0	0	37	2
Actuarially equivalent*	348	39	83	3
Enhanced	553	61	2,294	95
Type of deductible				
Zero	263	29	1,116	46
Reduced	170	19	1,138	47
Defined standard**	468	52	160	7
Some drugs covered in the coverage gap	191	21	1,005	42

Note: MA-PD (Medicare Advantage–Prescription Drug [plan]), PDP (prescription drug plan). The MA-PD enrollment described here excludes employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B–only plans. Components may not sum to stated totals due to rounding.

*Includes actuarially equivalent standard and basic alternative benefits.

**Deductible of \$415 in 2019.

Source: MedPAC analysis of CMS landscape, plan report, and enrollment data.

As with the income-related premium for Part B, higher Part D premiums apply to individuals with an annual adjusted gross income greater than \$85,000 and to couples with an adjusted gross income greater than \$170,000. A beneficiary whose income exceeds these levels pays a monthly adjustment amount in addition to the Part D premium paid to a plan. In 2018, the adjustment amount ranged from \$13.00 to \$74.80 per month, depending on income. For 2019, adjustments range from \$12.40 to \$77.40 per month (Centers for Medicare & Medicaid Services 2018d).¹²

Second, individuals enrolling in Part D outside their initial enrollment period must have proof that they had drug coverage as generous as the standard benefit under Part D (i.e., creditable coverage) to avoid the late enrollment penalty (LEP). The LEP amount depends on the length of time an individual goes without creditable coverage and is calculated by multiplying 1 percent of the base beneficiary premium by the number of full, uncovered months an individual was eligible but was not enrolled in a Part D plan and went without other creditable coverage. In 2018, 2 million Part D enrollees paid the LEP (Liu 2018).

Benefit offerings for 2019

Beneficiaries are encouraged to reexamine plan options each year during an open enrollment period that runs from October 15 until December 7. In addition to changes in plan availability and premiums, most plans make some changes to their benefit offerings—such as deductible amounts and plan formularies—that can affect access to and OOP costs of medications.

Beneficiaries have a variety of plan options

For 2019, plan sponsors are offering 901 PDPs and 2,414 MA-PDs, about 15 percent and 21 percent more plans, respectively, than in 2018. The increase in PDPs is attributable almost entirely to the decision of plan sponsors to offer more enhanced plans that include supplemental drug coverage. Plan sponsors were likely motivated by a change in CMS’s “meaningful difference” policy. In prior years, when a PDP sponsor offered two enhanced plans in a region, it was required to design benefit packages that had a specified difference between the plans’ estimated OOP costs. CMS discontinued that requirement for 2019 (Centers for Medicare & Medicaid Services 2018h).¹³ The

growth in MA–PD offerings likely reflects interest among plan sponsors in gaining a share of expanding enrollment in MA.

In each of the nation’s 34 PDP regions, beneficiaries continue to have broad choice. Options range from 22 PDPs in Alaska to 30 PDPs in the Pennsylvania–West Virginia region, along with MA–PDs in most areas. The number of MA plans available to a beneficiary varies by the county of residence, with an average county having 13 MA plans (23 plans when weighted by Medicare population). A small number of counties have no MA plans available.¹⁴

MA–PDs are much more likely to offer more generous coverage than PDPs. For example, 95 percent of MA–PDs include enhanced coverage beyond basic benefits, compared with 61 percent of PDPs (Table 14-5). Among plans with basic benefits, the 2019 marketplace includes no PDPs and just 2 percent of MA–PDs (excluding special needs plans) with the standard benefit design. A larger share of MA–PDs than PDPs charges no deductible (46 percent vs. 29 percent, respectively), and 52 percent of PDPs use the same \$415 deductible as the defined standard benefit. A larger share of MA–PDs (42 percent) than PDPs (21 percent) includes some additional coverage in the gap phase.

Plan premiums

For 2019, CMS calculated that Part D’s base beneficiary premium—enrollees’ share of the monthly national average expected cost for basic benefits—was \$33.19, a 5 percent drop from \$35.02 in 2018. One key reason the base premium declined was that, for 2019, brand-drug manufacturers must pay a 70 percent discount on drugs filled during the beneficiary’s coverage-gap phase rather than 50 percent, which was the case in 2018. This change helped reduce the projected cost to Part D plans of providing basic benefits. However, premiums for individual Part D plans can vary substantially from the base beneficiary premium because they reflect any difference between the sponsor’s bid and the national average bid, as well as any enhanced (supplemental) benefits the plan offers.

Seven of 10 stand-alone PDPs with the highest enrollment in 2018 experienced relatively small increases in their premium for 2019. On average, premiums increased about \$1 per month (Table 14-6, p. 400). The largest changes to monthly premiums were for the top three plans:

SilverScript Choice (17 percent increase to \$30.73), AARP MedicareRx Preferred (11 percent decrease to \$74.76), and Humana Walmart (37 percent increase to \$27.67). One sponsor introduced an option for 2019 (not shown in Table 14-6) designed for beneficiaries who take brand-name drugs; that plan has a much higher premium than its sponsors’ other plans but lower cost sharing on certain brands because the plan applies a portion of rebates at the point of sale (Levy 2018).

Although cost-sharing requirements in Part D plans have generally risen over the years, for 2019, PDPs with the highest enrollment have a mix of cost-sharing increases and decreases (data not shown). The top 10 PDPs (ranked by 2018 enrollment) continue to use a five-tiered formulary with differential cost sharing between preferred and nonpreferred drugs, as well as a specialty tier for high-cost drugs. Over time, many plan sponsors have moved from charging copayments (predetermined fixed amounts) to coinsurance (calculated as a percentage of cost) for certain tiers. In fact, for 2019, the top 10 PDPs shown in Table 14-6 all charge coinsurance rather than copayments for medications on nonpreferred drug tiers, charging 32 percent to 50 percent of each prescription’s negotiated price (Cubanski et al. 2018). By charging enrollees a share of the price of their prescriptions rather than a flat copayment, some of the price increases are reflected in beneficiaries’ cost sharing. Another reason for the move to coinsurance is that some plan sponsors have combined certain brand and generic drugs on the same cost-sharing tier (e.g., for all nonpreferred drugs). When the same tier includes both low-priced and high-priced drugs, plan sponsors may find it difficult to set a copayment amount that provides a comparable value of benefit.

Benchmark PDPs

Compared to 2018 levels, the number of PDPs available to LIS enrollees at no premium (“benchmark PDPs”) in 2019 remained essentially flat at 215 plans.¹⁵ One region, Florida, has two qualifying PDPs available. However, all other regions have at least 3 qualifying PDPs available, while the Arizona region has 10 such PDPs.

About 0.9 million LIS enrollees (about 1 in 10 LIS enrollees in PDPs) were enrolled in plans in 2018 that, in 2019, have premiums higher than regional benchmarks (Cubanski et al. 2018). However, many of those beneficiaries paid a premium in 2018, meaning they selected a plan rather than accepting Medicare’s random assignment to a benchmark plan. Once an LIS

**TABLE
14-6**

Change in 2019 premiums for PDPs with high 2018 enrollment

Plan name	Benefit type	2018 enrollment (in millions)	Weighted average monthly premium*		Change in weighted average monthly premium	
			2018 premium	Projected 2019 premium	Dollar	Percent
SilverScript Choice	Basic	4.6	\$26.34	\$30.73	\$4.39	17%
AARP MedicareRx Preferred	Enhanced	2.5	83.56	74.76	-8.80	-11
Humana Walmart	Enhanced	2.4	20.20	27.67	7.47	37
Humana Preferred	Basic	1.6	31.16	31.10	-0.06	<-0.5
Aetna Medicare Rx Saver Plus	Basic	1.4	35.49	34.06	1.43	-4
AARP MedicareRx Saver	Basic	1.2	29.61	29.20	-0.41	-1
WellCare Classic	Basic	1.0	30.41	31.65	1.24	4
Humana Enhanced	Enhanced	0.8	75.83	75.89	0.06	<0.5
AARP MedicareRx Walgreens	Enhanced	0.7	26.99	28.07	1.08	4
Aetna Medicare Rx Value Plus	Enhanced	0.6	57.46	60.16	2.70	5
Top 10 PDPs combined		16.6	38.97	40.02	1.05	3
All PDPs		20.6	40.57	41.21	0.64	2

Note: PDP (prescription drug plan). Components may not sum to stated totals due to rounding.

*Reflects the average of all PDPs offered under the same plan name in each region of the country, weighted by 2018 enrollment. The projected weighted average premium for 2019 does not reflect any enrollment switching among plans.

Source: Cubanski et al. 2018.

enrollee selects a plan, the enrollee is no longer eligible for reassignment.¹⁶ For 2019, CMS estimated that the agency randomly reassigned only about 100,000 individuals to new plans (Lyons 2018).

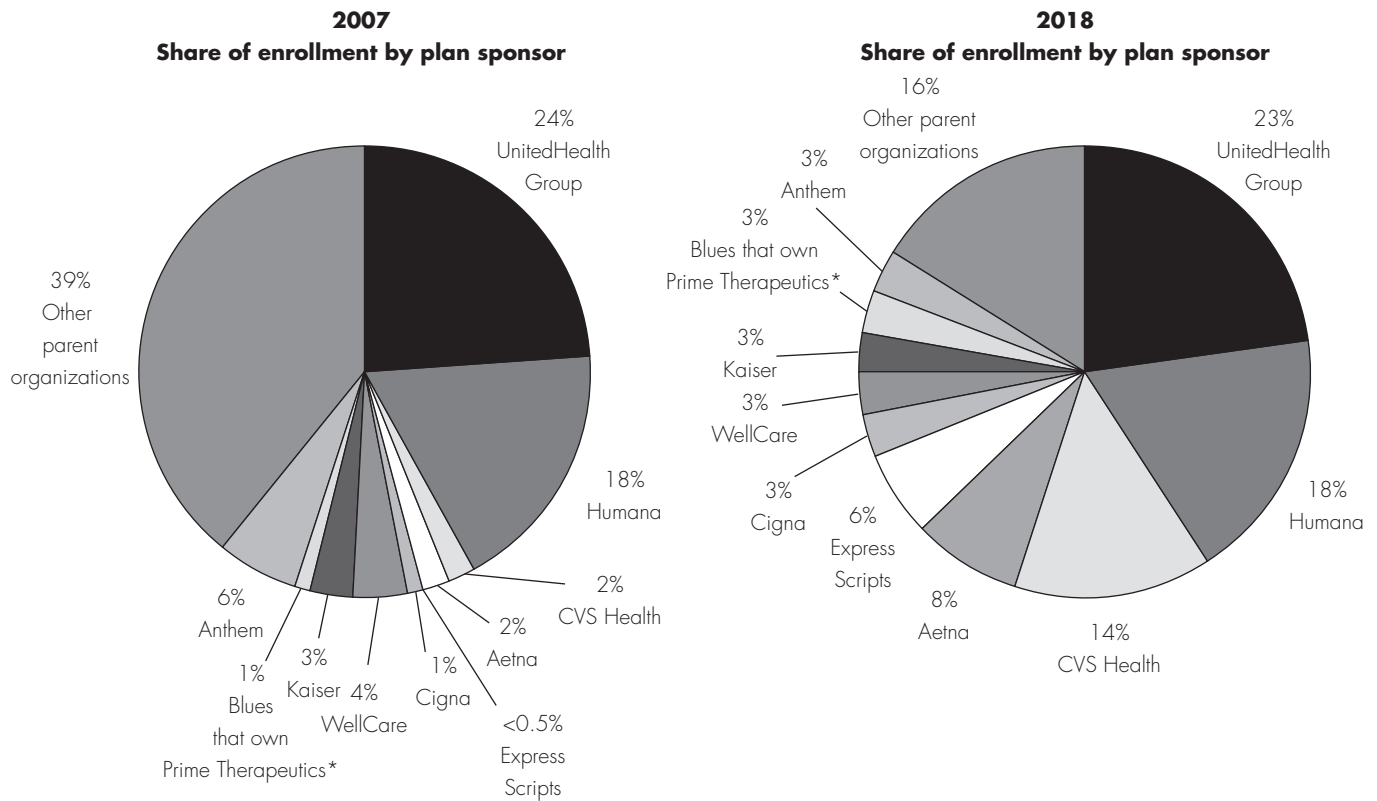
Plan sponsors and their tools for managing benefits and spending

Nearly 300 organizations sponsor Part D plans. In addition to insuring outpatient drug benefits, plan sponsors carry out marketing, enrollment, customer support, claims processing, coverage determinations, and exceptions and appeals processes. Sponsors also either contract with a pharmacy benefit manager (PBM) or perform those functions themselves through an in-house PBM.

Most sponsoring organizations also operate health plans or manage pharmacy benefits for commercial clients, and they use a similar set of approaches—involving formularies, manufacturer rebates, and pharmacy networks—for their Medicare and non-Medicare business. The market structure of plan sponsors has changed dramatically and continues to do so. By law, the Medicare program is prohibited from becoming involved in negotiations among sponsors, drug manufacturers, and pharmacies.

Concentrated enrollment among plan sponsors

Sponsors and PBMs exert bargaining leverage with drug manufacturers and pharmacies by winning large market shares of clients and by influencing the market shares of

**FIGURE
14-3****A number of plan sponsors have gained Part D market share over time**

Note: Market shares are based on Part D enrollment, including both stand-alone prescription drug plans and Medicare Advantage–Prescription Drug plans. Employer group waiver plans are also included. In 2018, CIGNA finalized its purchase of Express Scripts, and a merger between CVS Health and Aetna is near completion. *Prime Therapeutics is a pharmacy benefit manager that in 2018 served 22 Blue Cross/Blue Shield plans. Components may not sum to stated totals due to rounding.

Source: MedPAC based on enrollment data from CMS.

drug products through the structures of their formularies and tiered cost sharing. High enrollment levels can also provide sponsors with economies of scale that lower other costs. Part D enrollment is concentrated among a small number of sponsoring organizations. Combined, the two largest plan sponsors, UnitedHealth Group and Humana, have accounted for about 40 percent of the Part D market each year since 2007 (Figure 14-3). Over time, other sponsors have expanded their enrollment and market shares. In 2018, the top nine organizations ranked by enrollment and a group of Blue Cross and Blue Shield companies that collectively own or are serviced by Prime Therapeutics (a PBM) together accounted for 84 percent

of Part D enrollment. In 2007, those same organizations accounted for 61 percent of enrollment.

Plan sponsors' organizational structures differ in the degree to which each company integrates clinical and health plan services, PBM services, and dispensing. Most of the largest sponsors are insurers whose core business function is to offer commercial and MA health plans with combined medical and pharmacy benefits. However, more than 60 percent of Medicare beneficiaries remain in the FFS program and thus obtain Part D benefits through stand-alone PDPs (if they choose to enroll). Because PDPs remain an important market opportunity, the insurers serving as MA sponsors also offer PDPs in

many or all regions. Other sponsors—Express Scripts and CVS Health—have had core business models that focused primarily on pharmacy benefit management and dispensing and have offered only PDPs. However, both organizations are merging with insurers, thereby becoming more vertically integrated.¹⁷ Both also serve as PBMs under contract to other Part D sponsors. Most top sponsors also offer employer group waiver plans, which can take the form of MA-PDs or PDPs.

Enrollment among beneficiaries who receive Part D's LIS is also concentrated. In 2018, CVS Health had more LIS enrollees than any other sponsor: a total of 2.5 million, or 20 percent of LIS enrollees. Once a sponsor has a sizable number of LIS enrollees, its bid can influence LIS benchmarks because the benchmarks are calculated as a regional average premium weighted by LIS enrollment. At the same time, should the sponsor miss a regional benchmark by bidding too high, it would stand to lose potentially sizable numbers of LIS enrollees and market share.

Tools for managing benefits and spending

Over the first decade of Part D, the use of pharmacy management tools and fortuitous timing of patent expirations led to the expanded use of generics. By 2016, about 87 percent of prescriptions filled by Part D enrollees were for generics, compared with 61 percent in 2007. Today, generic substitutions in both Part D and among commercial populations may have reached a saturation point. For their commercial clients, plan sponsors increasingly focus on managing the use of specialty drugs and biologics for conditions such as cancer, rheumatoid arthritis, and multiple sclerosis. Spending for specialty drugs used by Part D enrollees is also expanding quickly. Many of these treatments are often injectable or infusible products. Dispensing specialty drugs can raise challenging logistical issues, and patients who take them may require closer clinical management. Specialty drugs also have very high prices, with annual costs of treatment per person of tens of thousands of dollars or more.

Sponsors use several general approaches to manage pharmacy benefits for both commercial and Part D plans. However, law and regulations limit how sponsors may manage their Part D populations compared with how the same organizations manage their commercial populations. Recently, policymakers have taken steps to expand the management tools available to Part D plan sponsors. However, as yet there have been no changes to Part D's

risk-sharing provisions that would give plan sponsors financial incentives to fully utilize those new tools in practice as they do with their commercial population.¹⁸

Formulary design and management

Formularies remain plan sponsors' most important tool for managing drug benefits. Sponsors decide which drugs to list on their formulary, which cost-sharing tier is appropriate for each drug, and whether a drug will be subject to prior authorization or other forms of utilization management. Those decisions require that plan sponsors strike a balance between providing access to medications while encouraging enrollees to use preferred therapies. Greater flexibility to use such tools also affects plan sponsors' bargaining leverage with manufacturers over rebates.

Within constraints, plan sponsors have tightened formularies modestly in recent years. Similarly, the use of utilization management tools in Part D—quantity limits, step therapy, and prior authorization—has grown.¹⁹ Sponsors apply such tools for drugs that are expensive, potentially risky, or subject to abuse, misuse, and experimental use. These tools are also intended to encourage the use of lower cost therapies.

Manufacturer rebates

In drug classes that have competing drug therapies, sponsors and their PBMs negotiate with brand manufacturers for rebates that are paid after a prescription has been filled. Individual negotiations can vary. For example, producers of brand-name drugs with no therapeutic substitutes may not provide any rebates.

Generally, manufacturers pay larger rebates when plan sponsors position a drug on their formulary in ways that increase the likelihood that the manufacturer will win market share over competitors. For example, a manufacturer might pay a rebate for placing its product on a plan's formulary (versus excluding the drug) but might pay somewhat larger rebates for putting the drug on a preferred cost-sharing tier or for not applying prior authorization requirements. Data on manufacturers' rebate amounts for individual drug products are highly proprietary.

The share of a drug product's gross price rebated to PBMs and payers can be high when there are close substitutes in the product's drug class. For example, across all payers for Sanofi's insulin product Lantus, the implied

rebate—the share of gross drug sales offset by rebates and other discounts—grew from around 10 percent in 2009 to nearly 60 percent by the second quarter of 2016 (*Indianapolis Business Journal* 2016). The extent to which rebates and discounts offset price increases varies across manufacturers, driven primarily by the mix of products in their portfolios and the competitive pressures they face (Credit Suisse 2015).

Pharmacy networks and postsale fees

Plan sponsors try to encourage enrollees to use pharmacies that dispense prescriptions at lower cost. For example, for some non-Medicare employer plans, enrollees are required to fill prescriptions within an exclusive network of retail pharmacies, refill prescriptions by mail rather than through retail pharmacies, and fill prescriptions with a 90-day rather than a 30-day supply.

Part D law and CMS guidance limit plan sponsors' ability to use those approaches. Most notably, plan sponsors must permit within their networks any pharmacy that is willing to accept the sponsors' terms and conditions; that is, plan sponsors cannot use exclusive pharmacy contracts.²⁰ Plan sponsors must also demonstrate that their network of pharmacies meets access standards.

Sponsors can, however, designate a subset of network pharmacies that offer preferred (lower) cost sharing. The strategy of designating certain “preferred cost-sharing pharmacies” has the potential to lower costs for Medicare and enrollees if it encourages enrollees to fill prescriptions at more efficient pharmacies. Differences between cost sharing at preferred pharmacies and other network pharmacies can vary substantially among plans (Medicare Payment Advisory Commission 2016b). In 2019, about 88 percent of beneficiaries enrolled in PDPs are in plans with preferred cost-sharing pharmacies, down from over 99 percent of plans in 2018 (Fein 2019).

Tiered networks as a management tool have been controversial because of past concerns that some enrollees do not have adequate access to preferred pharmacies with lower cost sharing. In addition, if LIS enrollees have less opportunity to use preferred pharmacy networks, the tiered network strategy could lead to higher Medicare spending because Medicare pays for most or all of LIS enrollees' cost sharing. Out of these concerns, CMS guidance permits plans to offer lower cost sharing at preferred pharmacies only if the approach does not raise Medicare

payments (Centers for Medicare & Medicaid Services 2015a, Centers for Medicare & Medicaid Services 2014b).

Although Part D plan sponsors cannot set up exclusive pharmacy networks, they can include other network contract terms that try to achieve the same aims—terms that have largely led to postsale payments from pharmacies to plans. The terms can include amounts that are a condition for participating as a preferred cost-sharing pharmacy, periodic payment reconciliations related to drug reimbursement rates, or performance-based fees that are assessed on quality measures (Fein 2016).²¹ For some pharmacies, postsale fees have made participation in plan sponsors' networks much less desirable because the pharmacies have not been able to predict their ultimate amount of reimbursement from plans.

Plan sponsors must report postsale pharmacy fees to CMS in the same way they report manufacturers' rebates. According to CMS, pharmacy price concessions and fees grew dramatically between 2013 and 2017, from \$229 million to \$4 billion (Centers for Medicare & Medicaid Services 2018l). Critics point out that when Part D enrollees pay cost sharing in the deductible phase or based on a percentage coinsurance at the pharmacy before such fees are assessed, those cost-sharing amounts are too high.

Specialty pharmacies

Commercial plan sponsors often try to dispense high-cost specialty drugs through an exclusive network of specialty pharmacies. Many of the largest insurers and PBMs own specialty pharmacies, and some encourage their clients to dispense exclusively through that company. In Part D, plan sponsors cannot set up a narrower network of specialty pharmacies. With a few exceptions, Part D's convenient access standards apply to the dispensing of all types of drugs, including specialty drugs.²² As with general retail pharmacies, some Part D plan sponsors include terms in their contracts with specialty pharmacies that include postsale price concessions and fees.

Most specialty pharmacies fill prescriptions through home delivery or deliveries to a convenient location. Specialty pharmacies can help ensure that patients meet specific clinical criteria through plans' prior authorization processes before dispensing prescriptions. They can also reduce waste by, for example, initially dispensing a 7- or 14-day supply and observing the patient for side effects, treatment effectiveness, and adherence before providing

a 30-day supply. Specialty pharmacies also play a role in patient education, monitoring, and data reporting. They often employ nurses to provide counseling by telephone about side effects and to monitor adherence. Specialty pharmacies may also facilitate outreach to patient assistance programs.²³

A variety of ownership types have evolved to dispense specialty drugs. Owners of specialty pharmacies include pharmacy chains, PBMs, health plans, drug wholesalers, hospital systems, and prescriber practices, or the pharmacy can operate as an independent business. Although most manufacturers do not own specialty pharmacies, a number of drug makers pay fees to specialty pharmacies and have contracts that limit which ones may dispense their drug. These relationships can result in specialty pharmacies with financial incentives that align with manufacturers.

Recent regulatory changes to Part D

In 2018, CMS finalized a number of regulatory changes in Part D and proposed other steps for stakeholder review and comment. Many of those measures were designed to make the tools that plan sponsors use in Part D more similar to those already available for managing pharmacy benefits in commercial populations.

For example, CMS now allows plan sponsors to add a newly approved generic to their formularies and remove or change the tier status of a therapeutically equivalent brand-name drug at any point during the benefit year without prior approval. The new generic would have to be offered at the same or lower cost sharing and with the same or less restrictive utilization management criteria, and beneficiaries must receive notification. This is consistent with the Commission's 2016 recommendation that CMS streamline the agency's process for reviewing formulary changes (Medicare Payment Advisory Commission 2016a).

In July 2018, CMS issued guidance for the 2019 benefit year allowing plan sponsors to use different utilization management requirements for a drug depending on a patient's indication (Centers for Medicare & Medicaid Services 2018j). As an example, some tumor necrosis factor (TNF) blockers have been licensed by the Food and Drug Administration (FDA) for a broader range of indications than others. Previously, the manufacturer of the product with more indications would have greater leverage in negotiations for plan formulary placement and rebates. Under indication-specific criteria, however, plan sponsors may require a patient with, for example, Crohn's disease to try a different TNF blocker that is approved for

fewer indications (but includes Crohn's) before covering the other agent. That approach gives sponsors leverage to encourage more price competition among drug therapies. CMS also noted that beginning with benefit year 2020, the agency will allow plan sponsors to limit on-formulary coverage of certain drugs by indication (Centers for Medicare & Medicaid Services 2018i).

Alternative therapies that can be used to treat the same condition sometimes fall across medical and pharmacy benefits. As health plans have expanded their pharmacy benefit management capabilities and acquired large warehouses of member data, those organizations have begun looking to manage specialty drugs across pharmacy and medical benefits. Some entities contend that by doing so, they can introduce greater price competition among manufacturers in certain drug classes. In August 2018, CMS issued guidance that, for 2019 and subsequent years, allows MA-PDs to use step therapy for managing Part B drugs, under which plan sponsors can require enrollees to try a drug covered under either Part B or Part D before using a Part B therapy for the same indication (Centers for Medicare & Medicaid Services 2018f).

Drug pricing

At all levels of the drug supply and distribution channels, there are incentives that drive prices higher because payments for pharmaceutical products or other services that are provided in conjunction with the distribution of pharmaceutical products are often based on a percentage of the drugs' prices (Diplomat Specialty Pharmacy 2017, Fein 2018, Feldman 2018, Garthwaite and Morton 2017). Over the past decade, manufacturers have shifted their development pipelines toward higher cost drugs and biologics. Meanwhile, participants in drug supply and distribution channels grew to rely on price inflation for revenue growth (Cahn 2017, Fein 2017, Lopez 2016, Sell 2015). Those factors combined with the increasing market concentration among participants in the drug supply and distribution channels put upward pressure on both prices and rebates. Until recently, the result was aggressive growth in drug prices at the point of sale (POS), which determines gross Part D spending (i.e., aggregate amounts paid at the pharmacy). There has also been a growing divergence between POS prices and net prices (net of postsale rebates and discounts from manufacturers and pharmacies (see text box on the effects of rebates, pp. 406–407)). This

**TABLE
14-7****Overall price growth moderated in 2016 and 2017, but prices for single-source brand-name drugs continued to grow aggressively****Year-over-year price change (in December)**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Cumulative 2006-2017
All drugs and biologics	5.9%	4.7%	5.2%	5.5%	4.9%	3.8%	8.6%	7.8%	5.7%	4.0%	4.3%	80%
Single-source brand-name drugs	8.2	10.3	9.2	10.5	11.3	12.5	12.8	13.9	11.2	8.0	8.7	216
Generic drugs	-16.4	-12.3	-8.1	-11.5	-17.3	-22.8	-4.1	-9.3	-13.0	-12.3	-4.1	-80
After accounting for generic substitution	-0.7	1.9	2.8	1.1	1.3	-8.2	6.7	6.0	2.7	-0.2	1.6	12

Note: Prices are measured by chain-weighted Fisher price indexes that reflect total amounts paid to pharmacies (i.e., do not reflect retrospective rebates or discounts from manufacturers and pharmacies).

Source: Acumen LLC analysis for MedPAC.

divergence means that Medicare and its beneficiaries pay a greater share of actual drug costs (net of rebates).

The aggregate amount of rebates in Part D has been growing. Using plan sponsors' assumptions about rebates from their 2019 bids, the Medicare Trustees estimated that direct and indirect remuneration (DIR)—consisting predominantly of manufacturers' rebates—amounted to 26 percent of total drug costs (averaged across all drugs, including those for which plans do not receive any rebates) (Boards of Trustees 2018). This amount is a significant increase from DIR of about 9.6 percent in 2007, and even from 2015, when the intensified competition in the hepatitis C drug market resulted in higher DIR (18.2 percent) than expected. This phenomenon is not limited to the Part D program. According to one estimate, in 2016, net prices for all pharmaceutical products sold in the U.S. were 28 percent below total spending based on invoice (list) prices (IQVIA Institute for Human Data Science 2017).²⁴

POS prices and net prices that reflect rebates and discounts both affect the costs of the Part D benefit. The former affects beneficiary cost sharing and the rate at which beneficiaries reach the catastrophic phase of the benefit, the point after which Medicare pays 80 percent of the

costs in individual reinsurance. For this reason, from beneficiaries' and Medicare's perspectives, prices paid at the pharmacy are an important indicator of Part D's costs. The latter—net prices—affects premiums and plan profits (see text box on prices, pp. 406-407).

Prices paid at the point of sale

The Commission has contracted with Acumen LLC for many years to construct a series of volume-weighted price indexes. The indexes do not reflect retrospective rebates or discounts from manufacturers and pharmacies; rather, they reflect POS prices—total amounts paid to the pharmacies, including ingredient costs and dispensing fees.

Overall price increases moderated in 2016 and 2017

Price increases for Part D drugs and biologics moderated in 2016 and 2017. Measured by individual national drug codes (NDCs) and excluding manufacturers' rebates, annual increases averaged about 4 percent in both years, compared with year-over-year increases of between 8.6 percent and 5.7 percent from 2013 through 2015 (Table 14-7).²⁵ This pattern is heavily influenced by the growth in prices of single-source brand-name drugs, which grew at a double-digit rate between 2010 and 2015 before returning to high single-digit growth rates in 2016 and 2017.

Effects on the Part D program of growing rebates and the divergence between point-of-sale prices and net prices

The role of rebates in drug pricing has garnered attention because of its implications for beneficiary cost sharing and for Medicare's program costs. For the past several decades, manufacturers have used rebates to charge different prices depending on each payer's market power (i.e., negotiating leverage) and its ability to deliver a certain market-share goal. In recent years, the gap between pharmacy prices (or point of sale (POS) prices) and net prices reflecting postsale rebates has widened considerably.

In theory, plan sponsors could apply manufacturer rebates in one of two ways. They could:

- reduce the price of the prescription that generated the rebate at the POS or
- offset aggregate benefit costs with the aggregate amount of rebate payments.

Under the first approach, enrollees who use drugs for which a rebate is negotiated would benefit from the

price discount. This approach is not always practical if, for example, the amount of rebate payment is determined retroactively based on performance goals or the magnitude of price increases. Under the second approach, the aggregate amount of rebate payments would be used to lower a plan's premium for all enrollees.

Part D plans overwhelmingly use the second approach because beneficiaries evaluate premiums closely when comparing plan options, and premiums are the basis on which plans qualify as low-income subsidy (LIS) benchmark plans. Using rebates to reduce plan premiums lowers Medicare program spending because (1) Medicare retains a portion of aggregate rebates to offset a share of program payments for individual reinsurance and (2) the rebates lower the subsidies Medicare pays for a portion of plan premiums for all enrollees. However, an opposite effect is that a higher proportion of enrollees reach Part D's out-of-pocket threshold—the point at which Medicare pays for 80 percent of benefits. At the same time, CMS has noted

(continued next page)

On average, prices of generic drugs are 75 percent to 90 percent lower than their brand-name counterparts, and generic prices tend to decline over time (Government Accountability Office 2016). While certain generic medications have experienced sharp price increases in recent years, primarily due to decreases in market competition, the prices of generic drugs between 2006 and 2017 generally declined (Berndt et al. 2017, Dave et al. 2017, Joyce et al. 2018, Loftus 2017, Thomas 2016).

Measured by a price index that takes generic substitution into account, Part D prices decreased slightly (0.2 percent) in 2016 and increased by 1.6 percent in 2017.²⁶ These rates contrast with the uptick we observed between 2013 and 2015, when price increases for brand-name drugs overwhelmed the effects of using lower priced generics. As a result, between December 2006 and December

2017, despite the 80 percent increase in average prices for individual NDCs, when generic substitution is taken into account, prices grew by just a cumulative 12 percent.

Brand price growth remained strong in many therapeutic classes

Over the past decade, prices have grown rapidly for brand-name drugs and biologics with few or no generic or biosimilar alternatives. Between 2007 and 2017, prices of single-source, brand-name products (that have no generic or biosimilar substitutes but may have generic alternatives in the same therapeutic class) grew by a cumulative 195 percent (index value of 2.95) (Figure 14-4, p. 408). Although brand-name products only account for a small share of prescriptions (about 13 percent in 2016; data not shown), their price increases can overwhelm the effects of using lower priced generics.

Effects on the Part D program of growing rebates and the divergence between point-of-sale prices and net prices (cont.)

that the increase in rebates and the resulting disparity between POS prices and net prices lower costs for plan sponsors while increasing costs for beneficiaries who pay coinsurance (calculated as a share of undiscounted POS prices) and for Medicare, in higher payments for reinsurance and low-income cost-sharing subsidies (Centers for Medicare & Medicaid Services 2017b).

Part D's unique benefit design may also distort formulary incentives for plan sponsors. For example, the Commission has raised concerns that the existence of manufacturers' coverage-gap discount and Medicare reinsurance payments that reduce plan liability for the benefit may create a situation in which there is a financial advantage to plan sponsors when they select high-cost, high-rebate drugs over lower cost alternatives (Medicare Payment Advisory Commission 2017). Such a financial benefit could accrue to plan sponsors because, under Part D's risk corridors, any rebates received above the projected amount contribute primarily to plan profits (Centers for Medicare & Medicaid Services 2017b).

In recent years, plan sponsors have negotiated additional "price-protection" provisions. Under these agreements, if a drug's list price increases above a specified threshold, the manufacturer rebates any incremental increase above the threshold to the plan sponsor (Kaczmarek 2015, Pharmacy Benefit Management Institute 2017). Sponsors negotiate ceiling prices because manufacturers' midyear price increases may result in benefit costs that are higher than they expected. While price-protection rebates give more predictability to sponsors, that protection could allow manufacturers to increase their POS prices with less resistance from plan sponsors. (In addition, it does not protect sponsors from annual price increases as the price protection only applies to price increases that occur during a given benefit year.) In turn, it could contribute to the greater divergence between POS and net prices, worsening the shift in costs toward beneficiaries and taxpayers who finance the Medicare program. ■

While drug prices have continued to rise in many classes, there has been a notable deceleration for some classes. For example, in 2017, our price index for therapies to treat rheumatoid arthritis and multiple sclerosis remained flat. However, previous increases had already raised prices for these therapies to three or more times those observed at the beginning of 2007.

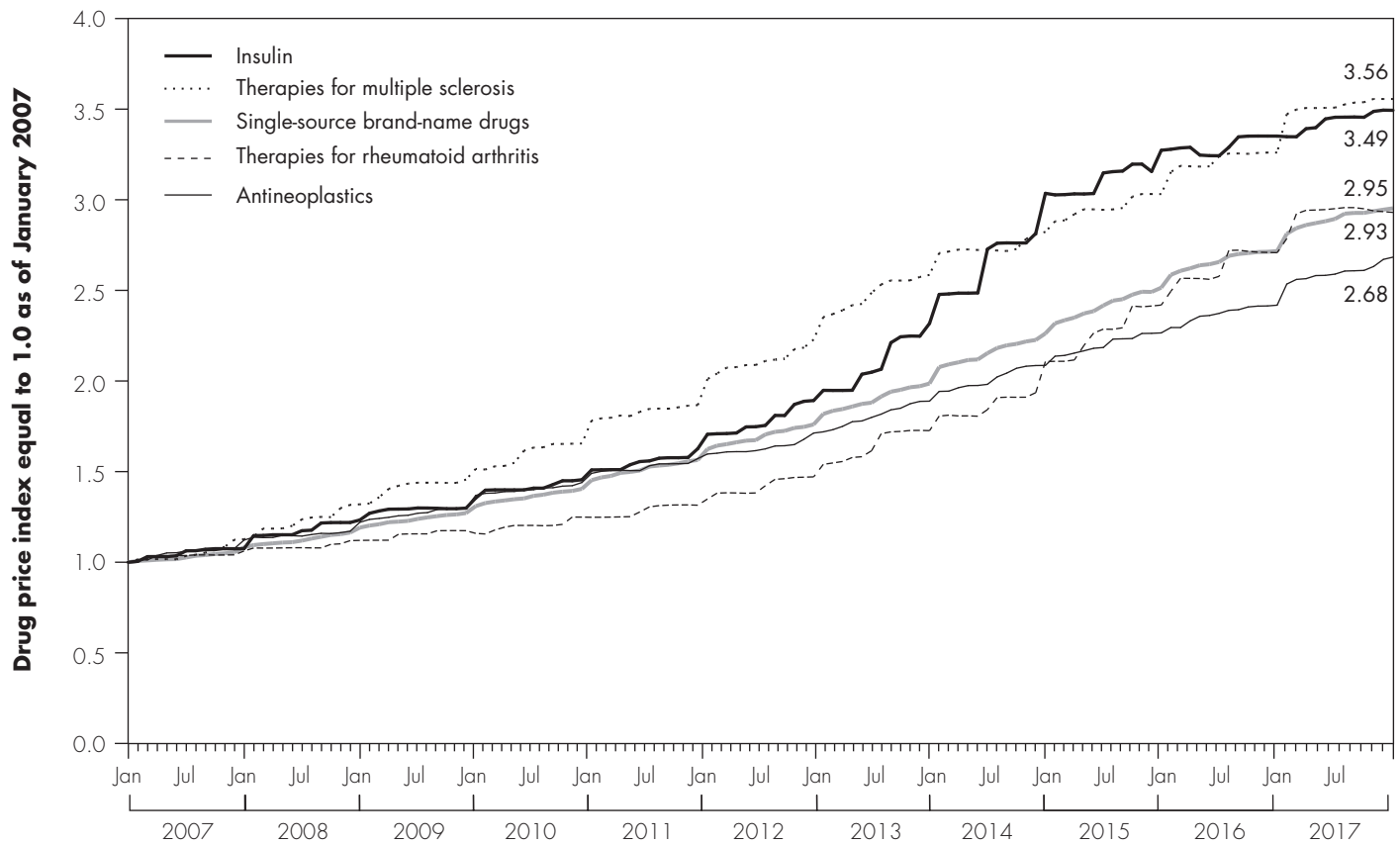
POS prices for brand-name drugs, however, are rarely the actual prices paid by plan sponsors because manufacturer rebates and other discounts can offset substantial amounts. For example, between 2007 and 2016, insulin prices grew by a cumulative 249 percent (index value of 3.49) (Figure 14-4, p. 408). However, because multiple manufacturers compete to produce insulin products, payers have been able to extract substantial price concessions from manufacturers (*Indianapolis Business Journal* 2016, Sagonowsky 2018). Thus, the trend for net prices for

insulin would show slower growth than for POS prices (Langreth et al. 2016).

Antineoplastics saw slower growth in prices compared with other drug classes dominated by single-source brand-name drugs (a cumulative 168 percent). The observed lower trend is heavily influenced by generic antineoplastics, which account for nearly 90 percent of prescriptions in this class. At the same time, antineoplastics still under patent protection command extremely high prices and tend to have lower rebates because these products have few or no therapeutic substitutes (Langreth et al. 2016). That is, rebates, if available, likely do not affect net prices of antineoplastics to the extent they do for some other classes where manufacturers provide larger rebates. As a result, the POS price trend shown by our index likely provides a reasonable approximation of the growth in net prices of antineoplastics.

**FIGURE
14-4**

Aggressive growth in prices of brand-name drugs reflects both price inflation and a shift toward more expensive products



Note: Chain-weighted Fisher price indexes.

Source: Acumen LLC analysis for MedPAC.

In general, the extent to which a manufacturer of a specific drug can raise its price depends on many factors—for example, whether there are generics or brand therapeutic alternatives, how many competitors there are in the given market, and whether their competitors cover all the same indications. Competition within a therapeutic class can result in restraint in list-price growth or in higher postsale rebates and discounts.

Program costs

The costs of providing Part D benefits are shared by Medicare and its enrollees. Medicare pays plan sponsors

two major subsidies on behalf of each enrollee in their plans:

- **Direct subsidy**—A monthly prospective amount set as a share of the national average bid for Part D basic benefits, adjusted for the risk of the individual enrollee.
- **Reinsurance**—Reimbursement to plans for 80 percent of drug spending above an enrollee's annual OOP threshold (the catastrophic phase of the benefit). Plans receive prospective payments for reinsurance that are reconciled with actual spending (net of postsale rebates and discounts) for each enrollee who reached the OOP threshold after the end of the benefit year.

**TABLE
14-8****Medicare's reimbursement amounts for Part D**

	2007	2010	2013	2014	2015	2016	2017	Average annual growth rate 2007-2017
Reimbursement amount (in billions):								
Direct subsidy*	\$17.6	\$19.6	\$19.6	\$18.5	\$18.1	\$17.1	\$14.2	-1.8%
Reinsurance	<u>8.0</u>	<u>11.2</u>	<u>19.2</u>	<u>27.2</u>	<u>33.2</u>	<u>35.5</u>	<u>37.4</u>	16.7
Subtotal, basic benefits	25.6	30.8	38.8	45.7	51.3	52.6	51.6	7.3
Low-income subsidy	16.7	21.1	23.2	24.3	25.6	26.4	27.5	5.1
Retiree drug subsidy	<u>3.9</u>	<u>3.9</u>	<u>1.7</u>	<u>1.3</u>	<u>1.1</u>	<u>1.0</u>	<u>0.8</u>	-14.7
Total Part D	46.2	55.8	63.7	71.3	78.0	80.0	79.9	5.6
Enrollee premiums**	4.1	6.7	9.3	10.5	11.5	12.7	14.0	13.1

Note: N/A (not applicable). The numbers presented reflect reconciliation. Components may not sum to stated totals due to rounding.

*Net of risk-sharing payments using Part D's risk corridors.

**For basic benefits, excluding low-income premium subsidies.

Source: MedPAC based on Table IV.B10 of the 2018 annual report of the Boards of Trustees of the Medicare trust funds.

Combined, the direct subsidy and reinsurance payments aim to cover 74.5 percent of the expected cost of basic benefits. Today, a much larger share of this overall subsidy takes the form of reinsurance (cost-based reimbursement) rather than the direct subsidy (capitated payments). In addition to reinsurance, Medicare shares risk with plan sponsors by adjusting direct-subsidy payments to reflect the expected costliness of a plan's enrollees and by limiting each plan's overall losses or profits through risk corridors if actual benefit spending, excluding reinsurance, is much higher or lower than the plan sponsor anticipated in its bid.

Beneficiary premiums are designed to cover the remaining 25.5 percent of the expected cost of basic benefits. In addition to monthly premiums, Part D enrollees also pay any cost sharing required by plan sponsors or, in the case of LIS enrollees, cost-sharing amounts set in law. (Part D's low-income cost-sharing subsidy pays for the difference between cost sharing set by plan sponsors and the nominal amounts set in law.)

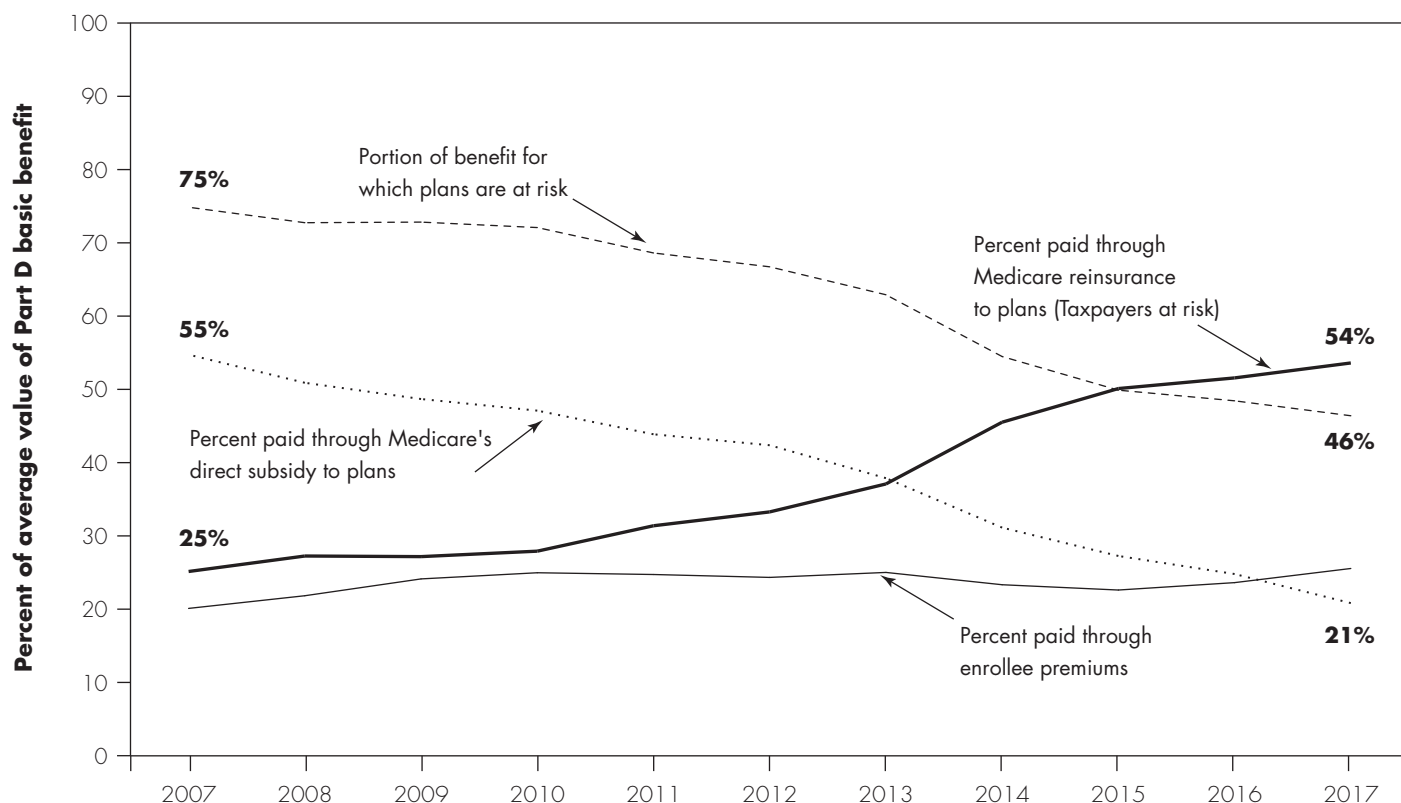
Trends in program subsidies and costs

Between 2007 and 2017, program spending (including expenditures for the RDS) rose from \$46.2 billion to \$79.9

billion (Table 14-8), or an average 5.6 percent per year. In 2017, Medicare paid \$14.2 billion for direct subsidies, \$37.4 billion for individual reinsurance, \$27.5 billion for the LIS, and \$0.8 billion for the RDS.

Medicare payments for individual reinsurance have grown faster than other components of Part D spending. Between 2007 and 2017, reinsurance payments increased at an average annual rate of 16.7 percent, compared with a decrease of 1.8 percent per year for the capitated direct subsidy payments (Table 14-8).

Compared with Medicare spending for reinsurance at the start of the program, growth accelerated between 2010 and 2015 due to a combination of factors. POS prices grew rapidly for brand-name drugs, and launch prices for new medicines such as hepatitis C treatments were extremely high (Hartman et al. 2018). The rapid growth in POS prices resulted in more enrollees reaching the OOP threshold. Changes made by PPACA to close the coverage gap also contributed to reinsurance growth by increasing the number of non-LIS enrollees who reached the OOP threshold. Between 2010 and 2015, Part D experienced a double-digit increase in the number of non-LIS enrollees

**FIGURE
14-5****Taxpayers bear increasing share of the risk for Part D benefit spending, 2007–2016**

Note: Figures represent the Commission's estimate of average values for incurred basic benefits net of risk corridor payments. "Portion of benefit for which plans are at risk" is calculated as the sum of the percent paid through direct subsidy and the percent paid through enrollee premiums. "Enrollee premiums" includes amounts paid by Medicare on behalf of beneficiaries who receive Part D's low-income subsidy.

Source: MedPAC based on Part D aggregate payment data from CMS Office of the Actuary.

who incur high costs and correspondingly rapid growth in Medicare spending for reinsurance.

Most recently, growth in Medicare's reinsurance to plans has slowed. In 2017, spending for hepatitis C and diabetes drugs slowed at the same time that manufacturer rebates rose as a whole. Those factors combined led to reinsurance spending that grew 6 percent annually between 2015 and 2017 (Boards of Trustees 2018, Cuckler et al. 2018, Hartman et al. 2018).

Going forward, analysts expect rebates to level off as a larger share of spending will be for relatively more costly specialty drugs (Cuckler et al. 2018). At the same time, changes made by the BBA of 2018 will further increase the number of beneficiaries reaching the OOP

threshold (see p. 393). As a result, reinsurance is expected to continue to grow as a share of total spending, shifting an even higher proportion of Medicare payments toward cost-based reimbursement. The most recent report by the Medicare Trustees projects that reinsurance payments will account for nearly 80 percent of subsidy payments to plans by 2027 (Boards of Trustees 2018).

Taxpayers bear increasing share of the risk for Part D spending

In 2017, premiums paid by Part D enrollees for basic benefits (not including the premiums paid by Medicare on behalf of LIS enrollees) totaled \$14 billion. That amount has grown by an average of 13 percent per year since 2007, reflecting both growth in enrollment and increases in benefit costs.

Despite significant growth in catastrophic benefits, average premiums for basic Part D benefits have remained low, in part reflecting the effects of Medicare's reinsurance subsidy, which has offset benefit spending that would otherwise have increased plan premiums. In the Commission's June 2015 report to the Congress, we noted regular patterns in spending that may suggest a bidding strategy that provides a financial advantage to plan sponsors (Medicare Payment Advisory Commission 2015). When plans underestimate catastrophic spending in their bids, they are able to charge lower premiums to enrollees and then later get reimbursed by Medicare for 80 percent of actual catastrophic claims (net of postsale rebates and discounts) through additional reinsurance at reconciliation. Because premiums are lower than they would have been had they reflected actual catastrophic claims costs, in nearly every year since 2007, the portion of basic benefits paid through enrollee premiums has been below the 25.5 percent objective specified in law (Figure 14-5).

At the same time, plan sponsors have bid too high on benefit spending other than catastrophic benefits. To the extent that actual costs for the basic benefits (excluding Medicare's reinsurance payments) are lower than what was estimated in plan bids, the structure of Part D's risk corridors allows plan sponsors to keep most of the difference as profits (Centers for Medicare & Medicaid Services 2017b). Between 2009 and 2015 (the latest year for which we have reconciled payment data by plan), the majority of plan sponsors returned a portion of their prospective payments to Medicare through risk corridors, meaning that they had profits above and beyond those assumed in their bids.

Part D was designed so that plan sponsors bear insurance risk on their enrollees' drug spending. Insurance risk provides an incentive for plan sponsors to offer attractive benefits while managing their enrollees' drug spending through formularies and other tools. However, data from CMS's Office of the Actuary show that the portion of benefits paid to plans through Medicare's capitated direct subsidy payments between 2007 and 2017 fell from 55 percent to 21 percent (Figure 14-5). Correspondingly, the portion for which plans are at risk (direct subsidy payments plus enrollee premiums) accounted for only 46 percent of the benefit costs in 2017, down from 75 percent in 2007. The portion paid through Medicare's reinsurance subsidies

(for which taxpayers are at risk) grew from 25 percent to 54 percent over the same period.

High-cost enrollees drive overall Part D spending growth

In 2016, 3.6 million Part D enrollees (about 8 percent) had spending high enough to reach the catastrophic phase of the benefit (beneficiaries known as "high-cost enrollees") (Table 14-9, p. 412). Between 2010 and 2016, the number of high-cost enrollees rose at an annual rate of 7 percent, compared with 1 percent annually before 2010. During this period, the share of high-cost non-LIS enrollees grew more rapidly than the share of high-cost LIS enrollees: 18 percent annually versus 5 percent annually. Still, in 2016, LIS enrollees accounted for 71 percent of all high-cost enrollees (calculated on unrounded numbers).

Aggregate spending for high-cost enrollees (i.e., including catastrophic and non-catastrophic spending) grew from about 40 percent of Part D spending before 2011, to 44 percent in 2011, to 58 percent in 2016. That growth reflects an annual 10 percent increase in per capita spending for high-cost enrollees compared with an annual 0.7 percent decrease in per capita spending for enrollees who did not reach the OOP threshold between 2010 and 2016 (data not shown).

Most spending growth for high-cost enrollees was due to higher prices

Rapid growth in the average price of prescriptions filled by high-cost enrollees explains most of the overall growth in their spending. That growth reflects inflation of the existing products' prices, greater availability of higher priced drugs and biologics, and other changes in the mix of medications prescribed.

Between 2010 and 2016, the average price per standardized, 30-day prescription for high-cost enrollees grew at an annual rate of 10 percent, while the number of prescriptions filled per enrollee per month remained flat. This pattern is in stark contrast to enrollees who did not reach the OOP threshold. The average price of their prescriptions fell 3.2 percent annually, while the number of prescriptions they used grew by 2.5 percent annually.

High-cost enrollees tend to use more brand-name drugs. For example, in 2016, their average generic dispensing rate was just under 75 percent, or about 12 percentage points below the overall Part D average. Some of this difference reflects situations in which brand-name

**TABLE
14-9****Part D enrollees reaching the benefit's catastrophic phase, 2007–2016**

								Average annual growth rate	
	2007	2010	2012	2013	2014	2015	2016	2007–2010	2010–2016
In millions									
LIS	1.9	2.0	2.1	2.2	2.5	2.6	2.6	1%	5%
Non-LIS	<u>0.4</u>	<u>0.4</u>	<u>0.5</u>	<u>0.7</u>	<u>0.9</u>	<u>1.0</u>	<u>1.1</u>	–2	18
All	2.3	2.4	2.6	2.9	3.4	3.6	3.6	1	7
Share of all									
Part D enrollees	8.8%	7.9%	7.7%	7.6%	8.6%	8.7%	8.3%	N/A	N/A

Note: LIS (low-income subsidy), N/A (not applicable). Growth rates were calculated using figures before rounding was applied. Components may not sum to stated totals due to rounding.

Source: Enrollee counts from 2007 are based on published figures from CMS. Enrollee counts from 2010 to 2016 are based on MedPAC analysis of Part D prescription drug event data.

medications are the dominant standard of care within a therapeutic class. However, we have consistently found that high-cost enrollees tend to use more brand-name drugs even in classes with generic alternatives (Medicare Payment Advisory Commission 2016a). For example, in 2016, nearly a quarter of high-cost LIS enrollees filled prescriptions for Nexium, a proton pump inhibitor in a therapeutic class with generic alternatives and over-the-counter products.

Part D's cost-sharing subsidy for LIS beneficiaries likely increases their propensity to use brand-name medications when generics are available. While the subsidy helps beneficiaries afford medications, it also minimizes or eliminates the financial incentives plans create to encourage use of lower cost drugs. Part of the Commission's June 2016 recommendation would moderately change LIS cost sharing to encourage the use of lower cost alternatives when they are available (see section on the Commission's recommendations, pp. 394–395).

Patterns of spending differ between high-cost enrollees with and without the LIS

Patterns of drug spending differ between LIS and non-LIS enrollees with high costs, and spending for non-LIS beneficiaries has grown faster. Between 2007 and 2016,

average annual spending increased by 190 percent for non-LIS beneficiaries compared with 100 percent for LIS beneficiaries. By 2016, high-cost enrollees without the LIS had spending of \$29,797 per year compared with \$20,899 per year for high-cost LIS enrollees.

Overall, 1 in 10 high-cost enrollees filled at least one prescription in which a single claim would have been sufficient to reach Part D's catastrophic phase.²⁷ Among non-LIS beneficiaries, about 18 percent had such a prescription compared with over 6 percent of LIS beneficiaries.

Differences in patterns of spending are largely attributable to the drug classes used by these two groups. One study found that, in 2015, non-LIS beneficiaries were more likely to use drugs to treat cancer, multiple sclerosis, rheumatoid arthritis, and pulmonary hypertension, while LIS beneficiaries were more likely to use medications for mental health, diabetes, HIV/AIDS, and pain (Trish et al. 2018). Hepatitis C treatments represented a considerable portion of spending for both groups. Our own analysis corroborates these patterns. In 2016, among high-cost enrollees, spending on cancer drugs accounted for over a quarter of all spending by non-LIS beneficiaries, compared with about 6 percent for LIS beneficiaries. Drugs to treat mental health conditions, on the other hand, accounted

**TABLE
14-10****Examples of drugs used by high-cost enrollees, 2016**

	Aggregate amount (in billions)		Average per beneficiary			
	Gross spending	Manufacturer gap discount	Annual cost	Annual total OOP cost	Annual OOP cost in catastrophic phase	Manufacturer gap discount
High-cost non-LIS enrollees						
Revlimid (multiple myeloma)	\$2.0	\$0.06	\$33,681	\$2,055	\$1,195	\$923
Imbruvica (leukemia)	0.8	0.03	30,096	1,999	1,085	965
Copaxone (multiple sclerosis)	0.8	0.03	20,362	1,492	745	761
Enbrel (inflammatory conditions)	0.7	0.05	12,599	638	249	907
Letairis (pulmonary arterial hypertension)	0.3	0.01	35,049	2,129	1,273	937
						Low-income cost-sharing subsidy
High-cost LIS enrollees						
Invega Sustenna (antipsychotic)	\$0.7	N/A	\$3,884	\$5	\$0	\$980
Lantus SoloStar (insulin)	0.9	N/A	1,135	7	0	389
Truvada (antiviral for HIV/AIDS)	0.5	N/A	3,996	8	0	783
Oxycontin (opioid analgesic)	0.5	N/A	1,795	11	0	515

Note: OOP (out-of-pocket), LIS (low-income subsidy), N/A (not applicable). Components may not sum to totals due to rounding. A beneficiary is classified as "LIS" if that individual received Part D's LIS at some point during the year.

Source: MedPAC analysis of Part D prescription drug event data and denominator file from CMS.

for 10 percent of spending for high-cost LIS beneficiaries, compared with about 2 percent for high-cost non-LIS beneficiaries.

Drug classes used more heavily by non-LIS beneficiaries tended to have therapies with higher prices than drugs in therapeutic classes used more heavily by LIS beneficiaries (Table 14-10). For example, in 2016, the annual cost of drugs to treat cancer and pulmonary hypertension, conditions more prevalent among non-LIS beneficiaries, ranged from just above \$30,000 to over \$35,000 per beneficiary. In comparison, for conditions more prevalent among LIS beneficiaries, annual costs ranged from \$1,135 for insulin to just under \$4,000 for an antiviral medication.

For selected medications used to treat prevalent conditions, annual cost-sharing amounts paid by high-cost enrollees without the LIS averaged between \$638 and \$2,129 (5 percent to 7 percent of the total annual medication costs).

For all but one of these selected medications, 50 percent or more of OOP costs were incurred in the catastrophic phase of the benefit. Manufacturers paid, on average, between \$761 and \$965 in coverage-gap discounts (amounts are calculated as an average per high-cost enrollee who used the medications shown in the table). These discounts, on average, offset about one-third of beneficiaries' total cost-sharing liability. One exception was Enbrel, for which the discount offset, on average, nearly 60 percent of beneficiaries' cost-sharing liability.

High-cost LIS enrollees pay much lower cost sharing out of pocket than those without the LIS. In 2016, average annual OOP spending for high-cost LIS enrollees for the selected medications averaged between \$5 and \$11 because Part D's LIS paid nearly all of the cost-sharing liability on their behalf. Medicare's low-income cost-sharing subsidy paid \$389 to \$980 for the selected

**TABLE
14-11****Use of drugs and biologics placed on specialty tiers, 2007–2017**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Average annual growth rate 2007– 2017
Use of specialty-tier drugs												
Spending (in billions)	\$3.4	\$4.1	\$5.3	\$6.1	\$8.0	\$10.1	\$14.1	\$20.6	\$30.2	\$35.5	\$37.1	27%
Claims (in millions)	3.0	2.8	3.1	3.2	3.8	4.1	5.3	6.7	7.7	8.7	8.3	11
Dollars per claim	\$1,151	\$1,490	\$1,713	\$1,939	\$2,076	\$2,462	\$2,648	\$3,065	\$3,907	\$4,068	\$4,455	14
Specialty-tier drugs as share of total Part D spending and use												
Spending	6%	6%	7%	8%	9%	11%	14%	17%	22%	24%	25%	
Claims	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.6	

Note: A specialty-tier drug is a drug that meets CMS's cost threshold per month (\$670 in 2017) and is identified based on a plan's placement of a product on its specialty tier. Which products are placed on a specialty tier varies across plans.

Source: Acumen LLC analysis for MedPAC.

medications (Table 14-10, p. 413), accounting for between 20 percent and over one-third of each medication's total cost.

Use of higher cost drugs poses challenges for Part D

FDA approvals of innovative medicines in the last few years have included an increasing number of biologics and specialty drugs, with new medicines focused on treatments for a range of cancers, viral infections, and autoimmune diseases, among other categories (Blair and Cox 2016, Frey 2017).²⁸ Many of these new entrants command higher prices than existing therapies and generally have few or no lower cost alternatives.

This shift in biopharmaceutical research and development has resulted in a rapid growth in the use of higher cost specialty drugs and biologics. Between 2007 and 2017, gross Part D spending for specialty-tier drugs (which, by definition, have high prices) grew an average 27 percent per year (Table 14-11).²⁹ (While some of the growth

in spending for specialty-tier drugs may be attributable to increased use of specialty tiers by plan sponsors, the pipeline effects are likely larger because most sponsors had a formulary tier structure that included a specialty tier by 2008, and nearly all plan sponsors had specialty tiers by 2010.) As a result, specialty-tier drugs now account for 25 percent of overall gross spending in Part D, up from about 6 percent to 7 percent before 2010.

Drugs with very high prices pose a particular challenge for Part D because most of their costs fall in the catastrophic phase of the benefit, for which Medicare takes most of the insurance risk. An increasing number of beneficiaries are meeting the OOP threshold with a single claim. In 2010, just 33,000 beneficiaries filled a prescription in which a single claim would have been sufficient to meet the OOP threshold. By 2016, that number rose more than 10-fold to over 360,000. Coinsurance on high-priced medicines is increasingly burdensome for enrollees without the LIS as well as for Medicare's LIS, which pays most or all of the cost-sharing liability on behalf of LIS beneficiaries.

To ensure the Part D program remains affordable for beneficiaries and taxpayers, there is an urgent need to address the current risk-sharing structure to better align plan incentives with those of Medicare and its beneficiaries. Commission recommendations to alter how plans are paid—through larger capitated payments and less open-ended reinsurance, combined with greater flexibility to use formulary tools—would strengthen plan sponsors’ incentives to manage drug spending for high-cost enrollees (see section on the Commission’s recommendations, pp. 394–395).

Beneficiaries’ access to prescription drugs

The overarching goal for the Part D program is to provide Medicare beneficiaries with good access to clinically appropriate medications while remaining financially sustainable to taxpayers. That goal involves finding a balance between managing medication therapies to encourage adherence to drugs with good therapeutic value while being judicious about whether the overall number and mix of medicines prescribed is beneficial to a particular patient (Medicare Payment Advisory Commission 2016a). Formulary management is the most important set of tools used by plan sponsors to strike this balance.

Greater flexibility to use formulary tools could help ensure that prescribed medicines are safe and appropriate for the patient, potentially reducing overuse and misuse. However, for some beneficiaries, those same tools could potentially limit access to needed medications. To ensure beneficiary access, CMS reviews and approves each plan’s formulary to check that it provides access to a wide range of therapeutic classes used by the Medicare population. Part D law also requires sponsors to have a transition process to ensure that new enrollees, as well as current members whose drugs are no longer covered or are subject to new restrictions, have access to the medicines they have already been taking.³⁰ Medicare also requires plan sponsors to establish a process for coverage determination and appeals.

Part D’s exceptions and appeals process

Part D’s exceptions and appeals process begins when an enrollee’s prescription is rejected at the pharmacy because the drug is not listed on the formulary or because of

utilization management requirements. The pharmacy is required to provide the enrollee with written information on how to obtain a detailed notice from his or her plan about why the benefit was denied and the right to appeal. The enrollee must contact the plan for the basis of the denial of benefits and initiate a request for a coverage determination with supporting justification from the prescriber.

Part D requires quicker adjudication time frames than for most Medicare Advantage medical benefits: Plan sponsors must make a decision about exceptions and coverage determinations within 72 hours of a request or within 24 hours for expedited requests. Because of the importance of the prescriber’s supporting statement in making a decision, the adjudication time frame for exceptions begins at the point at which the plan receives supporting justification from the prescriber. If the plan contacts the prescriber but is not able to obtain the supporting information needed to make a determination within a reasonable period of time, the plan must issue a denial and process any subsequent information it receives as a redetermination.³¹ If the enrollee is dissatisfied with the outcomes of those steps, he or she may appeal the decision to an independent review entity (IRE) and potentially to higher levels of appeal.

Part D plan sponsors report to CMS certain data on pharmacy claims that are rejected at the point of sale, as well as outcomes of coverage determinations and redeterminations. In 2016, only about 4 percent of prescriptions were rejected at the pharmacy for reported reasons—most commonly because the drug was not on the plan’s formulary, followed by plan requirements for prior authorization, quantity limits, or step therapy (Centers for Medicare & Medicaid Services 2018c). In that same year, only about 7 percent of reported rejections proceeded to a plan coverage determination, and, further, 7 percent of these determinations were subsequently appealed or sent on automatically for plan redeterminations. Although outcomes vary considerably among plans, in 2016, 65 percent and 71 percent of determination and redetermination decisions, respectively, were fully favorable to the enrollee (Centers for Medicare & Medicaid Services 2018c). Rates per 1,000 enrollees at which individuals sought coverage determinations and redeterminations have generally increased in recent years. This trend may indicate that enrollees and prescribers have become more aware of or willing to make use of the appeals process or that their prescriptions were increasingly subject to utilization management requirements.³² In 2016, rates of coverage

determinations per 1,000 enrollees declined by 3.5 percent and redeterminations rose by 2.3 percent.

CMS also reports on the decisions in the IRE step of the appeals process and uses these data for one measure in Part D plans' star ratings. In 2016, about 35,000 cases (9 percent of redeterminations) were appealed or automatically forwarded to an IRE. CMS has noted considerable gaps in data reporting for IRE appeals for the majority of plans.³³ However, when data were reported and validated, the IRE agreed with the plans' redetermination decisions most of the time.

Although plan sponsors' audit performances generally improved in 2017, CMS continues to find that a significant share of audited plans had difficulties in the areas of Part D coverage determinations, appeals, and grievances. For example, a common shortfall was that many plans misclassified coverage determination or redetermination requests as grievances or customer service inquiries (Centers for Medicare & Medicaid Services 2018a). In 2017 and early 2018, CMS took three enforcement actions against Part D plan sponsors (including civil and monetary penalties) for failure to make timely decisions related to coverage determinations, appeals, and grievances (Centers for Medicare & Medicaid Services 2018a). However, CMS did not impose any intermediate sanctions on plans.

Resolving coverage issues at the point of prescribing

A more efficient approach would be to resolve any issues at the point of prescribing rather than at the pharmacy counter through real-time formulary checks, e-prescribing, and electronic prior authorization. Such tools could reduce the need for coverage determinations and appeals and increase the likelihood that beneficiaries receive an appropriate medicine at the pharmacy. Automated processes could also lower the administrative burden and lead to a more uniform approach for beneficiaries, prescribers, and plans (American Medical Association 2015). Part D plan sponsors are required to support electronic prescribing, but e-prescribing and electronic prior authorization are optional for physicians and pharmacies.³⁴ While beneficiary advocates are generally supportive of such steps, some contend that they would not be sufficient to address persistent challenges (Medicare Rights Center 2016). Perhaps the most essential requirement for adoption of electronic prior authorization is clinician acceptance and use, which can require paying fees to the vendors and embracing practice-pattern change.

Quality in Part D

CMS collects quality and performance data to monitor sponsors' operations. A subset of data is used to rate plans in a 5-star system, from which CMS determines MA quality bonus payments. (Although both MA-PDs and stand-alone PDPs are evaluated for quality with star ratings, only MA-PDs are eligible for quality bonus payments in the Part C payment system.) Quality data are also made available to the public to help beneficiaries evaluate their plan options during Part D's annual open enrollment. CMS also requires plan sponsors to carry out medication therapy management (MTM) programs to improve the quality of the pharmaceutical care for high-risk beneficiaries. Although the Commission supports CMS's goal of improving medication management, we have ongoing concerns about the effectiveness of plans' MTM programs. In 2017, CMS began a new, enhanced MTM model.

Measuring plan performance

CMS collects Part D quality and performance data at the contract level from several sources—the Consumer Assessment of Health Providers and Systems[®] (CAHPS[®]) survey, agency monitoring of plans, data furnished by plan sponsors, and claims information (Centers for Medicare & Medicaid Services 2017a). Selected performance measures are available on the Plan Finder at www.medicare.gov to help beneficiaries evaluate their plan options during Part D's annual open enrollment. The lowest rated plans are flagged to caution beneficiaries about choosing those plans. The highest rated plans can enroll beneficiaries outside the annual open enrollment period. In addition, for MA-PDs, Part D performance data affect the MA program's overall plan ratings to determine the amount of bonus payment.

For 2019, Part D plan ratings are based on up to 14 metrics that measure plan performance on intermediate outcomes, patient experience and access, and process (Centers for Medicare & Medicaid Services 2018b). Intermediate outcome measures (four metrics, including adherence to selected classes of medications) typically each receive a weight of 3, while the seven measures related to patient experience and access (e.g., CAHPS survey results on ease with which plan members get needed medicines) each receive a weight of 1.5.³⁵ Two process measures (e.g., accuracy of drug prices posted on the Plan Finder) receive

a weight of 1. Finally, drug plan quality improvement, a measure reflecting changes in drug plans' performance from one year to the next, is assigned the highest weight, which is 5 (Centers for Medicare & Medicaid Services 2018e). Most MA-PDs are rated on up to 46 measures that assess the quality of plan services provided under the MA program, including 14 measures used to assess the quality of prescription drug (Part D) services provided. PDPs are evaluated only on scores for the 14 Part D measures.

CMS aggregates individual scores for each measure on the Plan Finder in a 5-star system; a 5-star rating reflects excellent performance, and 1 star reflects poor performance. Among PDPs, the average star rating for 2019 (weighted by 2018 enrollment) decreased to 3.34 from 3.62 a year earlier (Centers for Medicare & Medicaid Services 2018b). Nearly 69 percent of PDP enrollees (based on 2018 enrollment) are in 2019 contracts with 3.5 stars, and just 3 percent are in contracts with 4 or more stars. Among MA-PDs offered for 2019, the average star rating remained stable at just over 4. Based on 2018 enrollment, CMS estimated that 75 percent of MA-PD enrollees were in contracts rated 4 or more stars for 2019. However, the MA-PD results are averaged across a much broader set of measures than the 14 metrics specific to Part D services. When comparing just Part D measures, MA-PDs had higher values than PDPs on 11 of the 14. Nevertheless, as we noted in our chapter about the MA program, the trend among MA-PD sponsors of consolidating contracts to achieve higher star ratings leads us to question the validity of the MA-PD ratings and the comparison between PDPs and MA-PDs. As noted in Chapter 13, effective 2020, the Bipartisan Budget Act of 2018 changes the policy on plan consolidations.

Star ratings are intended to provide useful information when enrollees are choosing among plan options with similar costs or when plan sponsors are evaluating certain areas for improvement. However, none of the beneficiaries who participated in the Commission's 2017 focus groups mentioned using the Medicare star ratings as a source of information to choose a health plan (Summer et al. 2017). Instead, beneficiaries tended to consult with insurance brokers, friends, or family. The Commission supports the use of quality measurements that are patient oriented, encourage coordination across providers, and promote positive change in the delivery system. Because the provision of prescription drug services is different from the provision of medical services, quality measures

currently used for Part D may not help beneficiaries make informed choices among plan options.

For example, three intermediate outcome measures rate plans based on member adherence to select classes of medications. Because outcome measures are weighted more heavily than patient access and process measures, the three adherence measures have a disproportionate impact on plan ratings. However, for prospective enrollees, current members' medication adherence may not be an important factor when choosing among plan options. Additionally, plans may not be in the best position to assess whether the prescribed medications were clinically appropriate. At the same time, measuring plans on member adherence to medications could encourage plans to structure benefits in a way to provide better access.

Medication therapy management programs

Part D plans are required to implement MTM programs to optimize therapeutic outcomes and reduce adverse drug events through improved medication use among beneficiaries who have multiple chronic conditions, take multiple medications, and are likely to have drug spending that exceeds the annual cost threshold (\$4,044 for 2019).

Plan sponsors are required to enroll, with opt-out provisions, all eligible enrollees in their MTM programs. At a minimum, MTM programs must offer a comprehensive medication review (CMR) at least annually and a targeted medication review (TMR) at least quarterly for ongoing monitoring and follow-up of any medication-related issues.³⁶ CMS has changed the criteria for plans' MTM programs over time to broaden eligibility. Our earlier review of MTM programs revealed wide variations in eligibility criteria and the kinds of interventions provided to enrollees (Medicare Payment Advisory Commission 2009). Today, plan sponsors can no longer set narrower eligibility criteria than requiring beneficiaries to have more than three chronic conditions or use more than eight medications (Centers for Medicare & Medicaid Services 2018m).

In focus groups convened for the Commission, the physicians we spoke with were more aware of medication management conducted by the plans, particularly the CMRs, compared with previous years (Summer et al. 2017). Some physicians reported receiving notices stemming from CMRs. A couple of primary care doctors gave examples of cases in which an insurer had caught polypharmacy problems. Multiple physicians talked

about the importance of care coordinators for medication reconciliation after a hospital stay.

At the same time, we continue to be concerned that sponsors of stand-alone PDPs do not have financial incentives to engage in MTM or other activities that, for example, reduce unnecessary medical expenditures. CMS's analysis of the MTM data found lower rates of CMRs among MTM enrollees in PDPs compared with those in MA-PDs. Further, the effectiveness of the current MTM services in improving the quality of overall patient care is unclear (Centers for Medicare & Medicaid Services 2015b, Marrufo et al. 2013).

In 2017, CMS implemented an enhanced MTM model to test whether payment incentives and greater regulatory flexibility in designing MTM programs will lead to "improved therapeutic outcomes, while reducing net Medicare expenditures" (Center for Medicare & Medicaid Innovation 2015). Six Part D sponsors operating 22 PDPs in 5 regions of the country are participating in the enhanced MTM model over a 5-year period that began on January 1, 2017.³⁷

In November 2018, CMS released the performance results for 2017, the first year of the enhanced MTM model (Centers for Medicare & Medicaid Services 2018m). CMS estimates that, in 2017, expected FFS (Part A and Part B) spending for the 1.7 million beneficiaries enrolled in participating plans was reduced by approximately \$325 million (net of prospective payments made to plans to cover the cost of the enhanced MTM programs).

Participating plans that achieve a spending reduction of at least 2 percent qualify for a performance payment in the form of an increased beneficiary premium subsidy (in a future year). According to CMS, among the 22 participating plans:

- 11 plans (50 percent) reduced medical spending by 2 percent or more;
- 7 plans (32 percent) reduced medical spending by less than 2 percent; and
- 4 plans (18 percent) increased medical spending.

As a result, half of the participating plans will receive a higher premium subsidy (an additional \$2 in premium subsidy per member per month) in 2019. CMS expects to release an additional evaluation of plan performance results in the first half of 2019, with estimates of financial impact to be included in subsequent reports.

We are encouraged by the initial performance results. The Commission is generally supportive of providing Part D plan sponsors with regulatory flexibility combined with appropriate financial incentives to improve the pharmaceutical services provided under the program. We hope to learn from the forthcoming evaluation reports the characteristics of MTM programs and the kinds of intervention strategies that have been more effective in improving pharmaceutical care and health outcomes for beneficiaries, as well as how (and which specific) MTM services improve health outcomes and lower medical spending. ■

Endnotes

- 1 Instead of accepting the new assignment, LIS enrollees may choose a plan themselves. However, if their selected plan has a premium higher than the benchmark, they must pay the difference between the plan's premium and the benchmark amount. Once LIS enrollees select a plan themselves, CMS no longer reassigns them to a new plan. Instead, the agency sends beneficiaries letters about premium-free plan options in the enrollee's region.
- 2 Under CMS's de minimus policy, plan sponsors may voluntarily waive the portion of the monthly adjusted basic beneficiary premium that is above the LIS benchmark for a subsidy-eligible individual, up to a de minimus amount. The de minimus amount for 2019 is \$2.
- 3 For example, in 2019, generic tiers must have a per prescription copayment of \$20 or less or charge coinsurance of 25 percent or less in the benefit phase between the deductible and the initial coverage limit. Plans may not use copayments of more than \$100 or coinsurance higher than 50 percent for drugs on nonpreferred tiers (Centers for Medicare & Medicaid Services 2018d).
- 4 Plans' responsibility for spending on generic prescriptions filled in the coverage gap is rising from 7 percent in 2011 to 75 percent by 2020.
- 5 In each year thereafter, the OOP threshold will increase by the rate of growth in per capita Part D spending—the same as for the deductible and initial coverage limit.
- 6 In 2019, the manufacturer discount increased from 50 percent to 70 percent of brand-drug spending in the coverage gap. Because that discount is counted as though it were an enrollee's own OOP spending, for beneficiaries who use mostly or all brand-name drugs, it offsets much of the increase in the OOP threshold scheduled in the law for 2020.
- 7 The study used monthly prospective reinsurance payments in excess of the reinsurance costs that would be expected based on the risk profile of each plan's enrollees to examine how the "unpredictable" reinsurance costs relate to the premiums plans charged their enrollees.
- 8 The Commission recommended removing protected status from two of the six drug classes for which plan sponsors must now cover all drugs on their formularies (antidepressants and immunosuppressants for transplant rejection), streamlining the process for formulary changes, requiring prescribers to provide supporting justifications with more clinical rigor when applying for exceptions, and permitting plan sponsors to use selected tools to manage specialty-drug costs while maintaining appropriate access to needed medications.
- 9 If an employer agrees to provide primary drug coverage to retirees with an average benefit value equal to or greater than Part D (called "creditable coverage"), Medicare provides a tax-free subsidy to the employer for 28 percent of each eligible retiree's drug costs that fall within a specified range of spending.
- 10 Employer group waiver plans are sponsored by employers that contract directly with CMS or with an insurer or a pharmacy benefit manager to administer a drug benefit. They differ from employer plans that receive the RDS in that they are considered Part D plans—Medicare Part D is the primary payer rather than the employer. However, employer group waiver plans are offered only to Medicare-eligible retirees of a particular employer (i.e., Medicare waives the requirement that most Part D plans allow anyone to enroll).
- 11 A portion of the difference between an MA plan's payment benchmark and its bid for providing Part A and Part B services is referred to as "MA rebate dollars." Plan sponsors can use MA rebate dollars to supplement benefits or lower premiums for services provided under MA or Part D.
- 12 The Bipartisan Budget Act of 2018 modified the income-related premium, reducing federal subsidies further for individuals with incomes between \$133,500 and \$160,000 (or between \$267,000 and \$320,000 for couples). The law also created an income category at \$500,000 for individuals and \$750,000 for couples with an even lower federal subsidy (Social Security Administration 2018).
- 13 However, the agency maintained a meaningful-difference requirement between a sponsor's basic and enhanced benefit packages.
- 14 Most MA plans are MA-PDs, offering combined medical and outpatient drug benefits. However, a small share of MA plans (including Medicare Medical Savings Account plans) do not offer prescription drug coverage.
- 15 The 215 PDP plans available to LIS enrollees at no premium include 29 plans that had premiums within \$2 of their regional LIS threshold. The plan sponsors chose to waive the "de minimus" premium amount so that LIS enrollees would pay no premium in those plans.
- 16 An LIS enrollee who is no longer eligible for reassignment may select another plan during the year, including during the annual open enrollment period. In 2010, among LIS enrollees who were not eligible for reassignment by CMS and whose plans lost benchmark status for 2010, a relatively small share (14 percent) voluntarily switched plans during the annual enrollment period (Hoadley et al. 2015).

- 17 In 2018, CIGNA's purchase of Express Scripts was finalized. Regulators approved CVS Health's merger with Aetna after Aetna agreed to divest its PDPs, which it plans to sell to WellCare (Mathews and Prang 2018). Once the mergers are finalized and Aetna's divestiture is completed, the top four plan sponsors will account for about 66 percent of Part D enrollment, an increase from about 63 percent.
- 18 On January 18, 2019, CMS's Center for Medicare & Medicaid Innovation announced a new demonstration program that begins in January 2020, called the Part D Payment Modernization model, that would provide "new incentives for plans, patients, and providers to choose drugs with lower list prices in order to address rising federal reinsurance subsidy costs in Part D" (Centers for Medicare & Medicaid Services 2019). Participating plan sponsors would be eligible for performance-based payments based on realized savings (or costs) relative to a predetermined benchmark.
- 19 Step therapy is a type of management tool for drugs that begins a medication treatment regimen for a medical condition with the most preferred drug therapy and progresses to other therapies only if necessary.
- 20 Some pharmacies choose not to contract with certain plans because they do not like the terms and conditions the plans offer. Plan sponsors are not obligated to cover prescriptions at an out-of-network pharmacy, except under certain circumstances.
- 21 Critics contend that the way in which plan sponsors and their PBMs calculate pharmacy direct and indirect remuneration (DIR) fees is not transparent and that plan sponsors ignore or understate DIR fees when preparing Part D bids, leading to enrollee premiums that are too high (National Community Pharmacists Association 2016). PBMs and sponsors that support the use of pharmacy DIR fees counter that they are a means to encourage greater use of generics and reduce enrollees' premiums and OOP spending (Holtz-Eakin 2014). To the extent that beneficiaries select plans with tiered networks and use preferred pharmacies that are more efficient, the approach may also lower Medicare spending (Kaczmarek et al. 2013).
- 22 Plan sponsors cannot restrict access to a subset of network pharmacies unless dispensing a drug requires "extraordinary specialty handling, provider coordination, or patient education that cannot be met by a network pharmacy" (Centers for Medicare & Medicaid Services 2011). An exception is made if a manufacturer uses a limited distribution network. In this situation, the Part D enrollee would be able to fill that prescription at only one of the designated specialty pharmacies.
- 23 Part D enrollees can apply to bona fide independent charity patient assistance programs (PAPs) for help with cost sharing. Pharmaceutical manufacturers can provide cash donations to independent charity PAPs without invoking anti-kickback concerns if the charity is structured properly. Guidance from the Department of Health and Human Services Office of Inspector General (OIG) states that independent charity PAPs must provide assistance to broad rather than narrow disease groups, manufacturers must not exert direct or indirect control over the charity, and the PAP must not limit assistance to a subset of available products (Office of Inspector General 2014). The Internal Revenue Service is investigating the relationship between certain patient assistance charities and several major pharmaceutical manufacturers (Sagonowsky 2017). OIG has rescinded its advisory opinion for at least one major PAP on the grounds that the PAP did not fully disclose all relevant facts in OIG's investigation (Office of Inspector General 2018).
- 24 IQVIA Institute (formerly IMS) defines invoice prices as the amounts paid to distributors by their pharmacy or hospital customers, which is different from gross spending reflected in Part D's prescription drug event data (total payments to pharmacies before accounting for any rebates or discounts pharmacies retain). Net prices measure the amount received by pharmaceutical manufacturers and therefore reflect rebates, off-invoice discounts, and other price concessions made by manufacturers to distributors, health plans, and intermediaries.
- 25 An individual NDC uniquely identifies the drug's labeler, drug, dosage form, strength, and package size.
- 26 For this index, Acumen grouped NDCs that are pharmaceutically identical, aggregating prices across drug trade names, manufacturers, and package sizes. As a result, brand-name drugs are grouped with their generics if they exist, and this price index more closely reflects the degree to which market share has moved between the two.
- 27 Examples of medications in which a single claim was sufficient to reach the catastrophic phase of the benefit include newer antivirals for the treatment of hepatitis C, antineoplastics, and certain medications used for the treatment of pulmonary hypertension.
- 28 Although there is no consistent definition of specialty drugs, they tend to be characterized as high cost and are used to treat a rare condition, require special handling, use a limited distribution network, or require ongoing clinical assessment. Most biologics are a subset of specialty drugs (*American Journal of Managed Care* 2013).
- 29 These figures are based on the Acumen analysis for the Commission of Part D prescription drug event data. Beginning

- in 2007, CMS began setting a cost threshold per month (\$670 since 2017) for drug and biological products that may be placed on a specialty tier. A specialty-tier drug is identified based on a plan's placement of a product on its specialty tier. Which products are placed on a specialty tier varies across plans. Typically, plans charge enrollees coinsurance of 25 percent to 33 percent for products placed on specialty tiers.
- 30 The transition fill is a temporary one-time supply provided within the first 90 days of coverage in a new plan or the new contract year for existing enrollees. Each year since 2012, CMS has conducted a transition monitoring program analysis to evaluate whether plan sponsors are following Part D transition requirements. In 2017, under 6 percent of Part D contracts exceeded CMS's thresholds of noncompliance (Centers for Medicare & Medicaid Services 2018k).
- 31 In November 2018, CMS proposed limiting to 14 days the amount of time an exception request may be held in open status while the plan sponsor attempts to get a supporting statement from the prescriber. Under the proposal, if the sponsor had not heard from the prescriber, the sponsor would make a decision based on the information it had and notify the beneficiary no later than 14 days from the request (Centers for Medicare & Medicaid Services 2018g).
- 32 The use of utilization management by Part D plans has increased over time (Medicare Payment Advisory Commission 2018a). The increase may reflect plan sponsors' increased reliance on utilization management to ensure prescriptions are used for clinically appropriate indication(s) (e.g., opioid analgesics) and to manage the use of expensive medications (e.g., hepatitis C therapies).
- 33 For 2019 and going forward, CMS applies scaled reductions to appeals measures that are components of star ratings based on the completeness of IRE data (Centers for Medicare & Medicaid Services 2018h).
- 34 The Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment (SUPPORT) for Patients and Communities Act of 2018 requires mandatory electronic prescribing for controlled substances. The exception is New York, which mandates electronic prescribing of all medications.
- 35 A new intermediate outcome measure was added for 2019—statin use in persons with diabetes. All measures receive a weight of 1 in their first year of use.
- 36 CMRs must include an interactive person-to-person or telehealth consultation performed by a pharmacist or other qualified provider and a written summary of the review that includes a medication list and action plan, if any, provided to beneficiaries in CMS's standardized format. A TMR is distinct from a CMR because it is focused on specific medication-related problems, actual or potential. A TMR can be conducted person to person or be system generated, and interventions can be delivered by mail or faxed to the beneficiary or the prescriber, as appropriate (Centers for Medicare & Medicaid Services 2014a).
- 37 CMS is testing the Enhanced Medication Therapy Management model across five Part D regions: Region 7 (Virginia), Region 11 (Florida), Region 21 (Louisiana), Region 25 (Iowa, Minnesota, Montana, Nebraska, North Dakota, South Dakota, Wyoming), and Region 28 (Arizona). CMS selected regions based on variation in market competition and other characteristics as well as variation in Part A and Part B spending and is intended to allow for comparisons across regions and to (in aggregate) be broadly representative of national market characteristics (Centers for Medicare & Medicaid Services 2018m).

References

- American Journal of Managed Care. 2013. The growing cost of specialty pharmacy: Is it sustainable? February 18. <https://www.ajmc.com/payer-perspectives/0218/the-growing-cost-of-specialty-pharmacy-is-it-sustainable>.
- American Medical Association. 2015. *Prior authorization: The current landscape*. Chicago, IL: AMA.
- Berndt, E., R. Conti, and S. Murphy. 2017. *The landscape of US generic prescription drug markets, 2004–2016*. NBER working paper no. 23640. Cambridge, MA: National Bureau of Economic Research.
- Blair, W., and C. Cox. 2016. Current landscape of antiviral drug discovery. *F1000Research* 5 (February 22): 1–7.
- Blum, J. 2009. *A history of creating the Medicare prescription drug benefit: Striking compromises, avoiding past mistakes, and minding budgetary constraint*. Washington, DC: Avalere Health LLC.
- Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2018. *2018 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Insurance Trust Funds*. Washington, DC: Boards of Trustees.
- Cahn, L. 2017. Hey, Amazon: As a pharmacy benefit manager, you could create real competition for drug prices. *STAT*, November 15.
- Center for Medicare & Medicaid Innovation, Department of Health and Human Services. 2015. Announcement of Part D Enhanced Medication Therapy Management model test. <https://innovation.cms.gov/Files/x/mtm-announcement.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2019. Part D Payment Modernization model. Fact sheet. Baltimore, MD: CMS.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018a. 2017 Part C and Part D program audit and enforcement report from Medicare Parts C and D Oversight and Enforcement Group. Baltimore, MD: CMS. https://www.cms.gov/Medicare/Compliance-and-Audits/Part-C-and-Part-D-Compliance-and-Audits/Downloads/2016_Program_Audit_Enforcement_Report.pdf.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018b. 2019 Part C and D plan ratings. Fact sheet. Baltimore, MD: CMS.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018c. *Analysis of calendar year 2016 Medicare Part D reporting requirements data*. Baltimore, MD: CMS.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018d. Announcement of calendar year (CY) 2019 Medicare Advantage capitation rates and Medicare Advantage and Part D payment policies and final call letter. April 2. <https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Announcement2019.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018e. *Medicare 2019 Part C & D star rating technical notes*. November 8. Baltimore, MD: CMS. <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/PerformanceData.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018f. Medicare Advantage prior authorization and step therapy for Part B drugs. Fact sheet. August 7. <https://www.cms.gov/newsroom/fact-sheets/medicare-advantage-prior-authorization-and-step-therapy-part-b-drugs>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018g. Medicare and Medicaid programs; policy and technical changes to the Medicare Advantage, Medicare prescription drug benefit, Program of All-Inclusive Care for the Elderly (PACE), Medicaid fee-for-service, and Medicaid managed care programs for years 2020 and 2021. Final rule. *Federal Register* 83, no. 212 (November 1): 54982–55088.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018h. Medicare program; contract year 2019 policy and technical changes to the Medicare Advantage, Medicare cost plan, Medicare fee-for-service, the Medicare prescription drug benefit programs, and the PACE program. Final rule. *Federal Register* 83, no. 73 (April 16): 16440–16757.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018i. Memo to all Medicare Part D sponsors regarding indication-based formulary design beginning in contract year (CY) 2020, August 29.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018j. Memo to all Medicare Part D sponsors regarding indication-based utilization management, July 25.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018k. Memo to all Medicare Part D sponsors regarding the Part D transition monitoring program, January 17.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018l. Modernizing Part D and Medicare Advantage to lower drug prices and reduce out-of-pocket expenses. Proposed rule. *Federal Register* 83, no. 231 (November 30): 62153–62201.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018m. *Part D Enhanced Medication Therapy Management model: First year performance based payment results*. Fact sheet. Baltimore, MD: CMS. <https://innovation.cms.gov/Files/x/mtm-firstyrresults-fs.pdf>.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017a. *Medicare 2018 Part C & D star rating technical notes*. September 28. Baltimore, MD: CMS. <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/PerformanceData.html>.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017b. Medicare program; contract year 2019 policy and technical changes to the Medicare Advantage, Medicare cost plan, Medicare fee-for-service, the Medicare prescription drug benefit programs, and the PACE Program. Proposed rule. *Federal Register* 82, no. 227 (November 28): 56336–56527.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. LIS formulary drug coverage. Fact sheet. <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/Downloads/LIS-Formulary-Drug-Coverage-Fact-Sheet.pdf>.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015a. Announcement of calendar year (CY) 2016 Medicare Advantage capitation rates and Medicare Advantage and Part D payment policies and final call letter. Note from Sean Cavanaugh, Deputy Administrator, Centers for Medicare & Medicaid Services, and Jennifer Lazio, Director, Parts C & D Actuarial Group, Office of the Actuary, to Medicare Advantage organizations, prescription drug plan sponsors, and other interested parties, April 6. <http://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Announcement2016.pdf>.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015b. Part D Enhanced Medication Therapy Management model. Fact sheet. <https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2015-Fact-sheets-items/2015-09-28.html>.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014a. CY 2015 Medication Therapy Management Program guidance and submission instructions. Memo from Jennifer R. Shapiro, MPH, Acting Deputy Director, Medicare Drug Benefit and C & D Data Group. May 7.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014b. Medicare program; contract year 2015 policy and technical changes to the Medicare Advantage and the Medicare prescription drug benefit programs. Proposed rule. *Federal Register* 79, no. 7 (January 10): 1918–2073.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2011. *Prescription Drug Benefit Manual*. Chapter 5: Benefits and beneficiary protections. Baltimore, MD: CMS. http://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/Downloads/MemoPDBManualChapter5_093011.pdf.

Congressional Budget Office. 2014. *Assessing the design of the low-income subsidy program in Medicare Part D*. Working paper 2014–07. Washington, DC: CBO.

Credit Suisse. 2015. Global pharma. Equity research. May 1. https://doc.research-and-analytics.csfb.com/docView?language=ENG&format=PDF&source_id=csplusrsearchcp&document_id=1047911451&serialid=hfXhzuK6sK6xRrBsMZzLqZ96QT17v2YM0kkwWJRGRVU%3D.

Cubanski, J., A. Damico, and T. Neuman. 2018. *Medicare Part D: A first look at prescription drug plans in 2019*. Issue brief. Washington, DC: Kaiser Family Foundation.

Cuckler, G. A., A. M. Sisko, J. A. Poisal, et al. 2018. National Health Expenditure projections, 2017–26: Despite uncertainty, fundamentals primarily drive spending growth. *Health Affairs* 37, no. 3 (March): 482–492.

Dave, C. V., A. S. Kesselheim, E. R. Fox, et al. 2017. High generic drug prices and market competition: A retrospective cohort study. *Annals of Internal Medicine* 167, no. 3 (August 1): 145–151.

Decarolis, F. 2015. Medicare Part D: Are insurers gaming the low income subsidy design? *American Economic Review* 105, no. 4 (April): 1547–1580.

Diplomat Specialty Pharmacy. 2017. JP Morgan Healthcare Conference investor presentation, January. http://s21.q4cdn.com/406493826/files/doc_presentations/2017/jan/DSP-Investor-Deck-JP-Morgan-January-2017-FINAL2.pdf.

Fein, A. 2019. New Part D enrollment data: CVS extends its lead in 2019 preferred pharmacy networks. *Drug Channels* blog. January 23. <https://www.drugchannels.net/2019/01/new-part-d-enrollment-data-cvs-extends.html#more>.

Fein, A. 2018. Building a new drug wholesaler compensation model: What happens as brand inflation slows? *Drug Channels* blog. July 24. <https://www.drugchannels.net/2018/07/building-new-drug-wholesaler.html>.

- Fein, A. 2017. McKesson's profit shortfall: How wholesalers benefit from rising drug list prices. *Drug Channels* blog. January 26. <http://www.drugchannels.net/2017/12/the-cvs-aetna-deal-five-industry-and.html#more>.
- Fein, A. 2016. Behind Diplomat Pharmacy's plunge: A primer on DIR fees in Medicare Part D. *Drug Channels* blog. November 8. <http://www.drugchannels.net/2016/11/behind-diplomat-pharmacys-plunge-primer.html>.
- Feldman, R. 2018. Perverse incentives: Why everyone prefers high drug prices—Except for those who pay the bills. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3162432.
- Frey, P. 2017. CDER New Drugs Program: 2017 update. Presentation during the Food and Drug Administration/Centers for Medicare & Medicaid Services Summit, December 5. <https://www.fda.gov/downloads/AboutFDA/CentersOffices/OfficeofMedicalProductsandTobacco/CDER/UCM587690.pdf>.
- Fung, V., C. M. Mangione, J. Huang, et al. 2010. Falling into the coverage gap: Part D drug costs and adherence for Medicare Advantage prescription drug plan beneficiaries with diabetes. *Health Services Research* 45, no. 2 (April): 355–375.
- Garthwaite, C., and F. Morton. 2017. Perverse market incentives encourage high prescription drug prices. *ProMarket* blog. November 1. <https://promarket.org/perverse-market-incentives-encourage-high-prescription-drug-prices/>.
- Gomberg, J., and M. Hunter. 2015. *Medicare Part D member profitability by pharmacy channel*. White paper. Chicago, IL: Milliman.
- Government Accountability Office. 2016. *Generic drugs under Medicare: Part D generic drug prices declined overall, but some had extraordinary price increases*. GAO–16–706. Washington, DC: GAO.
- Hartman, M., A. B. Martin, N. Espinosa, et al. 2018. National health care spending in 2016: Spending and enrollment growth slow after initial coverage expansions. *Health Affairs* 37, no. 1 (January): 150–160.
- Hoadley, J., L. Summer, E. Hargrave, et al. 2015. *To switch or be switched: Examining changes in drug plan enrollment among Medicare Part D low-income subsidy enrollees*. Washington, DC: Kaiser Family Foundation. <http://kff.org/medicare/report/to-switch-or-be-switched-examining-changes-in-drug-plan-enrollment-among-medicare-part-d-low-income-subsidy-enrollees/>.
- Holtz-Eakin, D. 2014. CMS is at it again . . . increasing Rx costs for seniors. American Action Forum Insight. <https://www.americanactionforum.org/insight/cms-is-at-it-again-increasing-rx-costs-for-seniors/#ixzz4TftJKC4m>.
- Indianapolis Business Journal*. 2016. Analysis: Diabetes drug price war likely to claim more casualties. September 30. <http://www.ibj.com/articles/60623-analysis-diabetes-drug-price-war-likely-to-claim-more-casualties>.
- IQVIA Institute for Human Data Science. 2017. *Medicine use and spending in the U.S.* Parsippany, NJ: IQVIA.
- Joyce, G., L. Gascue, J. Zissimopoulos, et al. 2018. Generic drug price hikes and out-of-pocket spending for Medicare beneficiaries. <https://healthpolicy.usc.edu/research/generic-drug-price-hikes-and-out-of-pocket-spending-for-medicare-beneficiaries/>.
- Jung, J., and R. Feldman. 2018. Growing reinsurance payments weaken competitive bidding in Medicare Part D. *Health Services Research* 53, no. 6 (December): 4371–4380.
- Kaczmarek, S. 2015. Pharmacy manufacturer rebate negotiation strategies: A common ground for a common purpose. <http://www.milliman.com/insight/2015/Pharmacy-manufacturer-rebate-negotiation-strategies-A-common-ground-for-a-common-purpose/>.
- Kaczmarek, S., A. Sheldon, and D. Liner. 2013. *The impact of preferred pharmacy networks on federal Medicare Part D costs, 2014–2023*. Windsor, CT: Milliman.
- Langreth, R., M. Keller, and C. Cannon. 2016. Decoding Big Pharma's secret drug pricing practices. *Bloomberg*, June 29. <https://www.bloomberg.com/graphics/2016-drug-prices/>.
- Levy, S. 2018. SilverScript unveils options to lower out-of-pocket costs. *Drug Store News*, October 2. <https://www.drugstorenews.com/retail-news/silverscript-unveils-options-to-lower-out-of-pocket-drug-costs/>.
- Liu, D. L., Centers for Medicare & Medicaid Services, Office of the Actuary. 2018. Personal email communication with author, December 21.
- Loftus, P. 2017. Prescription-drug shortages help push up prices of similar drugs. *Wall Street Journal*, April 12.
- Lopez, L. 2016. These companies you've never heard of are about to incite another massive drug price outrage. *Business Insider*, September 12.
- Lyons, K., Centers for Medicare & Medicaid Services, Office of the Actuary. 2018. Personal email communication with author, November 27.

- Marrufo, G., A. Dixit, D. Perlroth, et al. 2013. Medication therapy management in a chronically ill population: Interim report. Prepared for the Centers for Medicare & Medicaid Services by Acumen LLC. Contract # HHSM-500-2011-00012I/TOT0001. Baltimore, MD: CMS.
- Mathews, A., and A. Prang. 2018. Aetna to sell Medicare Part D drug business to WellCare Health. *Wall Street Journal*, September 27.
- Medicare Payment Advisory Commission. 2018a. *A data book: Health care spending and the Medicare program*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2018b. *Payment basics: Part D payment system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016a. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2009. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Rights Center. 2016. Comments to CMS on the 2017 advance call letter, March 4.
- Medicare Today*. 2018. More than 8 in 10 seniors are satisfied with Part D. <http://medicaretoday.org/wp-content/uploads/2016/07/8.21.18-Senior-Satisfaction-Survey-Fact-Sheet.pdf>.
- National Community Pharmacists Association. 2016. Letter to Dr. Francis Crosson, Chair, Medicare Payment Advisory Commission, regarding Medicare Part D considerations for March 3–4, 2016, MedPAC meeting. February 29.
- Office of Inspector General, Department of Health and Human Services. 2018. Letter from Gregory E. Demske, Chief Counsel of HHS OIG to James C. Stansel, Executive VP and Chief Counsel of PhRMA. <https://oig.hhs.gov/compliance/alerts/guidance/stansel-letter.pdf>.
- Office of Inspector General, Department of Health and Human Services. 2014. Supplemental special advisory bulletin: Independent charity patient assistance programs. *Federal Register* 79, no. 104 (May 30): 31120–31123.
- Pharmacy Benefit Management Institute. 2017. *Trends in drug benefit design*. Plano, TX: PBMI. <http://www.pbmi.com/PBMI/Research/Store/BDR.aspx>.
- Sagonowsky, E. 2018. Half-off sale at Eli Lilly as drug rebating climbs to 51% in 2017. *Fierce Pharma*, March 30. <https://www.fiercepharma.com/pharma/irs-probes-whether-patient-charity-acted-as-a-conduit-for-big-pharma>.
- Sagonowsky, E. 2017. IRS investigates patient charity as a possible ‘conduit’ for Big Pharma sales. *Fierce Pharma*, June 29. <https://www.fiercepharma.com/pharma/irs-probes-whether-patient-charity-acted-as-a-conduit-for-big-pharma>.
- Sell, D. 2015. Expect higher prices for generic drugs, says drug wholesaler. *Philadelphia Inquirer*, September 17.
- Social Security Administration. 2018. Income-related monthly adjustment amounts for Medicare Part B and prescription drug coverage premiums. Final rule. *Federal Register* 83, no. 216 (November 7): 55626–55632.
- Summer, L., E. Hargrave, M. Hertel, et al. 2017. *Final report: Beneficiary and provider perspectives on Medicare and other issues: Findings from 2017 focus groups in Richmond, Seattle, and Indianapolis*. Study conducted by staff from NORC at the University of Chicago for MedPAC. Washington, DC: MedPAC.
- Thomas, K. 2016. 20 states accuse generic drug companies of price fixing. *New York Times*, December 15.
- Trish, E., J. Xu, and G. Joyce. 2018. Growing number of unsubsidized Part D beneficiaries with catastrophic spending suggests need for an out-of-pocket cap. *Health Affairs* 37, no. 7 (July): 1048–1056.
- Yu, Y. F., L. R. Hearld, H. Qu, et al. 2016. Association of Part D coverage gap with COPD medication adherence. *American Journal of Managed Care* 22, no. 8 (August 1): e275–282.
- Zhang, Y., S. H. Baik, and J. R. Lave. 2013. Effects of Medicare Part D coverage gap on medication adherence. *American Journal of Managed Care* 19, no. 6 (June 1): e214–224.
- Zhang, Y., J. M. Donohue, J. P. Newhouse, et al. 2009. The effects of the coverage gap on drug spending: A closer look at Medicare Part D. *Health Affairs* 28, no. 2 (March–April): w317–325.

CHAPTER

15

**Redesigning Medicare's
hospital quality
incentive programs**

R E C O M M E N D A T I O N

15 The Congress should:

- Replace Medicare's current hospital quality programs with a new hospital value incentive program (HVIP) that:
 - includes a small set of population-based outcome, patient experience, and value measures;
 - scores all hospitals based on the same absolute and prospectively set performance targets;
 - accounts for differences in patients' social risk factors by distributing payment adjustments through peer grouping, and
- For 2020, update the 2019 Medicare base payment rates for acute care hospitals by 2 percent. The difference between the update recommendation and the amount specified in current law should be used to increase payments in a new HVIP.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Redesigning Medicare's hospital quality incentive programs

Chapter summary

The quality of hospital care has improved in recent years, in part due to Medicare's four hospital quality incentive programs: the Hospital Inpatient Quality Reporting Program, Hospital Readmissions Reduction Program (HRRP), Hospital-Acquired Condition Reduction Program (HACRP), and Hospital Value-based Purchasing Program. Nevertheless, the Commission has several concerns about the design of these programs. First, there are too many overlapping hospital quality reporting and payment programs, which creates unneeded complexity. Second, all-condition measures are more appropriate to use in pay-for-performance programs than the condition-specific readmissions and mortality measures currently used. Third, the existing programs include process measures that are not tied to outcomes and measures that are not reported consistently across hospitals. Fourth, some of the programs score hospitals using "tournament models" in which providers are scored relative to one another despite the potential availability of a clear, absolute, and prospectively set system of targets.

The Commission asserts that quality measurement should be patient oriented, encourage coordination, and promote delivery system change. In our June 2018 report to the Congress, we examined the potential to create a single, outcome-focused, quality-based payment program for hospitals—that is, the hospital value incentive program (HVIP)—based on our principles for quality measurement. Initially, the HVIP can incorporate existing quality measure

In this chapter

- Design of a hospital value incentive program
- Scoring methodology
- Converting HVIP points to payment adjustments using peer grouping
- Comparison of HVIP model to existing hospital quality programs
- Recommendation to redesign hospital quality incentive programs

domains such as readmissions, mortality, spending, patient experience, and hospital-acquired conditions (or infection rates). Assuming equal weighting of the measure domains, the HVIP increases the weight of mortality and patient experience and decreases the weight of readmissions and infection rates compared with current quality programs. In line with the Commission's principles, the HVIP uses clear, prospectively set performance standards to translate hospital performance on these quality measures to a reward or a penalty.

According to the Commission's principles, adjusting measure results for social risk factors can mask disparities in clinical performance. Therefore, the HVIP accounts for differences in providers' patient populations by incorporating a peer-grouping methodology in which quality-based payments are distributed to hospitals separated into 10 peer groups, defined by the share of beneficiaries with full dual eligibility for Medicare and Medicaid treated (as a proxy for income). The HVIP redistributes pools of dollars to hospitals in the peer groups based on their quality performance. The pools of dollars are funded by a payment withhold from all hospitals in the peer group (e.g., 5 percent) and a portion of the current-law hospital payment update. Under the Commission's HVIP model, the use of peer grouping of hospitals that serve different populations makes payment adjustments more equitable compared with the existing quality payment programs.

Consistent with the Commission's principles, the HVIP links payment to quality of care to reward hospitals for efficiently providing high-quality care to beneficiaries. Accordingly, the Commission recommends that the Congress replace Medicare's current hospital quality programs with this new HVIP that includes a small set of population-based outcome, patient experience, and value measures; scores all hospitals based on the same absolute and prospectively set performance targets; and accounts for differences in patients' social risk factors by distributing payment adjustments through peer grouping. As we discuss in Chapter 3 of this report, the Commission recommends that payments in the HVIP be increased by the difference between the Commission's update recommendation for acute care hospitals and the amount specified in current law. Adding the additional payment in the HVIP will better reward hospitals providing higher quality care. In addition, eliminating the existing penalty-only programs (i.e., HRRP and HACRP) would have the effect of removing about \$1 billion in penalties that hospitals currently pay each year. ■

Background

The Commission contends that Medicare payments should not be made without considering the quality of care delivered to beneficiaries and has recently formalized a set of principles for quality measurement in the Medicare program (Medicare Payment Advisory Commission 2018). For several years, fee-for-service (FFS) Medicare has provided hospitals with incentive payments based on the quality of care delivered. These incentive payments are distributed through four programs: the Hospital Inpatient Quality Reporting Program (IQRP), Hospital Readmissions Reduction Program (HRRP), Hospital Value-based Purchasing (VBP) Program, and Hospital-Acquired Conditions Reduction Program (HACRP). The quality of hospital care has improved in recent years, at least in part as a result of these programs. However, the hospital industry has raised concerns that these programs' designs are complex, are overlapping, and send hospitals different performance signals. In addition, aspects of the programs do not align with the Commission's principles for measuring quality in Medicare.

As noted in our June 2018 report to the Congress, the Commission has four main concerns about the design of the current hospital quality programs. The first is that too many overlapping hospital quality payment and reporting programs create unneeded complexity for hospitals and the Medicare program itself (Medicare Payment Advisory Commission 2016a, Medicare Payment Advisory Commission 2016b). Some of the quality measures are scored in multiple programs, although for fiscal years 2020 and 2021, CMS has removed some of this duplication. For example, CMS recently removed readmissions and mortality measures from the IQRP since they are scored in the HRRP and VBP programs. However, hospital-acquired condition (HAC) measures continue to be scored in both HACRP and the VBP Program (Centers for Medicare & Medicaid Services 2018).

Second, the Commission believes that all-condition mortality and readmissions measures are more appropriate to score in pay-for-performance programs than the condition-specific (e.g., acute myocardial infarction) measures that are scored in the IQRP, VBP Program, and HRRP. Using all-condition measures would increase the number of observations and reduce the random variation that single-condition readmission rates face under current policy (Medicare Payment Advisory Commission 2013).

The all-condition measure also affords more flexibility to hospitals to tailor interventions to the particular conditions most relevant to their patient population.

Third, the current IQRP includes process measures that are not tied to outcomes and are burdensome to report (e.g., hearing screening before hospital discharge). The Commission believes that quality payment programs should include population-based measures, though providers may choose to use more granular outcomes and process measures to internally manage their own quality improvement. As part of its Meaningful Measures Initiative, this year CMS has removed many of the process measures from the IQRP, but some remain. Between fiscal years 2020 and 2022, CMS is removing two structural measures, four chart-abstracted measures, and seven clinical process of care measures based on electronic health record (EHR) data from the IQRP because the data collection and reporting costs outweigh the benefit of their continued use (Centers for Medicare & Medicaid Services 2018).

Fourth, the VBP Program, HRRP, and HACRP score hospitals using "tournament models" (i.e., providers are scored relative to one another), despite the potential availability of clear, absolute, and prospectively set performance criteria. For example, the HACRP's statutory design penalizes 25 percent of hospitals every year, even if all hospitals significantly reduce their HAC rates. The Commission's principles for quality measurement encourage Medicare quality programs to use fixed targets to make it clear to providers what level of performance is expected and to not artificially limit who can be successful in the program.

The Commission's initial work on redesigning Medicare's hospital quality payment programs presented in the June 2018 report to the Congress focused on the creation of a single hospital value incentive program (HVIP) that would be patient oriented, encourage coordination across providers and time, and promote change in the delivery system. This chapter updates our original HVIP work reported in June 2018 by incorporating three key changes. First, to address the importance of tying hospital infection rates to quality payments, our HVIP model includes, for scoring purposes, HACs as a measure domain. Second, to provide greater emphasis on patient experience, our HVIP model scores each of 10 patient experience measures instead of only the patient's overall hospital rating. Finally,

the model's payment adjustments, which are redistributed to hospitals based on their quality performance, are calculated using two different pools of dollars (funded through either a 2 percent or 5 percent withhold). The different pools of dollars were constructed in light of the Commission's discussions about (1) increasing the HVIP withhold amount over time (e.g., from 2 percent to 5 percent) versus beginning with a higher withhold amount than the current VBP Program (e.g., 5 percent) and (2) increasing HVIP payments by redirecting an estimated 0.8 percentage point from the fiscal year (FY) 2020 hospital update to the HVIP, which is about 1.0 percent of inpatient payments.¹ We expect the combination of including a portion of the payment update and replacing the current quality incentives (which reduce hospital's Medicare payments in aggregate) with the new HVIP (which would increase Medicare payments in aggregate) better rewards hospitals providing higher quality care.

Since existing hospital quality programs are defined in statute, the Congress would need legislation to eliminate them and create a new HVIP.² Although the HVIP would replace quality programs that affect FFS hospital payment, the HVIP measures and scoring methodology—where practical—should align across all Medicare accountable entities and providers, including Medicare Advantage plans and accountable care organizations (ACOs). All should be held accountable for a small set of population-based measures, scored against absolute thresholds, and have their payments adjusted through peer grouping. For example, ACO quality payments can be based on the ACO's performance on population-based quality measures, like all-condition readmissions, with different payment adjustments for groups of ACOs based on their patient population's social risk factors (i.e., peer groups). Medicare's use of the same set of measures and scoring framework across different populations could also promote multipayer alignment.

Design of a hospital value incentive program

As we initially proposed in the June 2018 report to the Congress, hospitals should have their payments adjusted based on their performance on quality and cost measures under a single program instead of three separate programs. Medicare should not pay hospitals and other

providers merely for reporting quality measures, but should pay based on performance on these measures. The Commission therefore recommends that the IQRP be retired and the HRRP, HACRP, and VBP Program be combined into one HVIP.

The current hospital quality payment programs apply different penalties and rewards to affect hospital payments. The HRRP penalizes hospitals with excess readmissions compared with the expected amount by removing up to 3 percent of their payments. The HACRP penalizes the 25 percent of hospitals with the highest rates of HACs by removing 1 percent of their payments. The budget-neutral VBP Program redistributes a 2 percent withhold of each hospital's payments based on their quality performance, where hospitals can be penalized or rewarded by more than their withhold. In aggregate, based on the structure of all the current hospital quality payment programs, hospitals have the potential to be rewarded up to about 3 percent of their inpatient payments and penalized up to about 6 percent. Most net payment adjustments are less than 2 percent. Implementing the HVIP would increase Medicare inpatient hospital spending by between \$750 million and \$2 billion in 2020 and by \$5 billion to \$10 billion over five years due to the elimination of the existing penalty programs.

Fundamentally, the HVIP encourages quality improvement by tying hospital performance to payment, but CMS should also continue to further quality improvement through public reporting of quality results on Hospital Compare and other websites. Public reporting allows beneficiaries to see the quality of care provided at hospitals, and it fosters competition among providers. Under an HVIP, CMS should also continue to provide hospitals with quality feedback reports to help them understand their performance (e.g., benchmarks). Even though the Commission's HVIP would score and make payment adjustments using all-condition measures, CMS should monitor condition-specific results (e.g., acute myocardial infarction mortality) calculated using claims data, as well as publicly report and provide hospitals with condition-specific results, which would be helpful for a hospital's internal quality improvement efforts.

Measure domains

The Commission recommends that the HVIP include quality measure domains based on our quality

measurement principles and largely calculated or administered by CMS: readmissions, mortality, Medicare spending per beneficiary (MSPB), patient experience, and HAC rates.³ These risk-adjusted measures are included in the existing hospital quality programs and thus are known to hospitals. Providers could choose to use other granular quality measures to manage their own quality improvement efforts, but those measures would not factor into Medicare payment. We envision that, as new quality measures are developed or hospital performance on current measures “top out” (i.e., everyone performs well on the measure), CMS would refine the HVIP measures and measure domains. The HVIP should continue to incorporate population-based outcome, patient experience, and value measures that are not unduly burdensome for providers. For each of these measures, to reward increasingly improved performance, policymakers could weight recent year performance higher than performance in earlier years.

Readmissions

Hospital readmissions are disruptive to patients and caregivers and costly to the health care system; they also put patients at additional risk of hospital-acquired infections and complications. Readmissions are a major source of patient and family stress and can contribute substantially to loss of functional ability, particularly in older patients. Measuring and adjusting payments based on a hospital’s readmission rates holds the hospital accountable for ensuring that beneficiaries have the discharge information they need and encourages hospitals to coordinate with other providers. Since the implementation of the HRRP, hospitals have taken action and improved readmission rates. The readmission measure is also understandable to the beneficiary and can be calculated through claims data.

In the HVIP, hospitals are scored on their risk-adjusted rates of unplanned readmissions within 30 days of discharge for all conditions using Medicare claims. Our model also uses three years of claims data (2014 through 2016) to increase the number of observations. Using three years of all-condition readmissions (rather than the six conditions used in the HRRP) reduces random variation and allows Medicare to measure the quality of care for low-volume providers. The all-condition measure also holds hospitals accountable for more of their patient population than condition-specific measures do.

Mortality

Mortality during or soon after a hospital stay (e.g., within 30 days) is an important outcome measure, and it encourages hospitals to coordinate with post-acute care providers. Like the readmission measure, this outcome measure can be determined with a high degree of accuracy through claims. Our HVIP model used an all-condition, risk-adjusted measure of mortality during the hospital stay and 30 days after discharge. (The measure excludes patients who are in hospice care before admission.) As with the readmission measure, we used three years of data (2014 to 2016) to increase the number of observations.

Medicare spending per beneficiary

MSPB measures efficient care, not volume of services, and reduces fragmentation of care. By pairing the spending measure with mortality and readmissions, hospitals have an incentive to maintain episode quality while reducing episode costs. The measure shows 30-day episode spending at an individual hospital compared with Medicare spending nationally for hospitals with comparable patients. Our model uses the MSPB measure CMS computes for the VBP Program: price-standardized, risk-adjusted (e.g., age, sex, severity of illness) measures that include all Medicare Part A and Part B claims paid during the period from 3 days before an inpatient hospital admission through 30 days after discharge, divided by the episode-weighted median MSPB amount across all hospitals (the median MSPB measure equals 1.0). The model uses the MSPB values calculated with three years of data (2014 to 2016).

Patient experience

Based on the Commission’s principles, a new HVIP includes population-based patient experience measures. The literature finds that high-quality hospitals and physicians appear to focus not only on technical excellence but also on how patients perceive their care (Chatterjee et al. 2015). When patients have a better experience, they are more likely to adhere to treatments, return for follow-up appointments, and engage with the health care system by seeking appropriate care.

The Hospital Consumer Assessment of Healthcare Providers and Systems[®] (HCAHPS[®]) is a national standardized survey instrument and data collection methodology for measuring patients’ perspectives on their care during a recent hospital stay.⁴ The survey allows

Medicare, hospitals, beneficiaries, and others to make objective and meaningful comparisons of hospitals. Since 2006, CMS and hospitals have worked with third-party survey vendors to collect survey results from a random sample of each hospital's adult inpatient discharges. The survey results are used to calculate 10 core measures of patient experience: (1) communication with nurses, (2) communication with doctors, (3) responsiveness of hospital staff, (4) communication about medicines, (5) cleanliness of hospital environment, (6) quietness of hospital environment, (7) discharge information, (8) care transition, (9) overall rating, and (10) whether the beneficiary would recommend the hospital to others. (Hospitals can add their own survey items to the core survey.) All the HCAHPS measures are scored in the VBP Program and they are publicly reported on the Hospital Compare website.

We considered three ways the HVIP could incorporate patient experience. For simplicity, the patient experience measure domain could be based on the single overall hospital rating measure (i.e., share of patients who gave their hospital a rating of 9 or 10 on a scale of 0 (lowest) to 10 (highest)). The overall hospital rating measure is strongly or moderately correlated with the other quality measures, so by scoring a hospital's overall rating, the other measures are likely captured (Centers for Medicare & Medicaid Services 2017). A second approach would be to score a subset of the HCAHPS measures—for example, using a composite of four communication measures: communication with doctors, communication with nurses, responsiveness of staff, and discharge information. All the patient experience measures are moderately positively correlated, so any small changes in the measures included in the composite would not have large effects on how groups of hospitals score in the HVIP. A third approach is to use the current VBP Program methodology, which scores a composite of all HCAHPS measures, with cleanliness and quietness combined into one measure. This approach captures a more comprehensive picture of a patient's experience with a hospital's care compared with using only the overall rating or a subset of HCAHPS measures.

The Commission's HVIP model uses the third approach from the VBP Program, which scores a composite of all HCAHPS measures. When the HVIP is implemented, CMS can determine through the federal rule-making and comment process which HCAHPS measures to score.

We spoke with several hospitals' quality leaders about their use of and experiences with the HCAHPS survey. They asserted that patient experience, and the HCAHPS, is ingrained in their quality measurement and improvement work. They also commented that the HCAHPS should be updated to include communication with care teams since patient care is handled by teams of practitioners (e.g., respiratory therapists, certified nursing assistants), not just nurses and physicians. Hospitals also commented that the HCAHPS survey administration approach should be modernized to include web-based and email surveys, as opposed to just mailed and telephone surveys. We agree that CMS should consider updating the HCAHPS to better capture patients' experiences during hospital care.

Hospital-acquired conditions

HACs are among the leading threats to patient safety. Over a million HACs occur across the U.S. health care system every year, leading to the loss of tens of thousands of lives and adding billions of dollars to health care costs (Agency for Healthcare Research and Quality 2016). However, the monitoring and evaluation of infection rates through Medicare's programs and other national initiatives, such as the Partnership for Patients, have improved infection rates.

As part of the HACRP and the VBP Program, hospitals are scored on six self-reported HAC standardized infection ratios (observed over predicted infections), including central line–associated bloodstream infection, catheter-associated urinary tract infection, colon and hysterectomy surgical site infections, methicillin-resistant *Staphylococcus aureus* bacteremia, and *Clostridium difficile* infection. Hospitals use their own claims and medical records to report their infection rates through the Centers for Disease Control and Prevention's (CDC's) National Health Safety Network (NHSN). The NHSN provides hospitals, states, and regions with comparative data needed to identify problems and measure local and national progress on prevention efforts.

There are concerns that some hospitals are better than others at reliably and accurately reporting infections and other patient safety issues (Calderwood et al. 2017). Even so, the Commission believes it is important to drive quality improvement by tying infection rates to payment through the HVIP. However, the Commission encourages CMS

and the CDC to improve their monitoring and validation of the data.

The Commission's HVIP model averages each hospital's standardized infection ratios for all the available HAC measures. The publicly available CMS data include infection ratios based on just one year of data (October 2016 to September 2017). (About 600 hospitals did not have a sufficient sample to publicly report all 6 infection rates. Under the Commission's HVIP model, those hospitals were scored only on the other four measure domains.) As with the claims-based readmissions, mortality, and MSPB measures, the Commission recommends an HVIP that would use three years of HAC results, which would increase the number of hospitals with HAC results available to score.

Scoring methodology

Salient features of the HVIP model include weighting of measure domains and the methodology to convert a hospital's performance to a score.

Weighting of measure domains

Our HVIP model's simulations treat each measure as an equally weighted, separate domain (each domain is worth 20 percent of the total HVIP score), consistent with the VBP Program methodology. With the equal weighting, the HVIP increases the weight of mortality and patient experience and decreases the weight of readmissions and infection rates compared with current quality programs. Policymakers could give the measure domains different weights based on a ranking that takes into account interests shared by the Medicare program and its beneficiaries. We found that the measure domains have moderately positive correlations with each other; therefore, small weighting changes will not have large effects on hospital's rankings with the HVIP. When the HVIP is implemented, CMS can determine through the federal rule-making and comment process how to weight HVIP measure domains.

Converting measure performance to HVIP points (score)

One of the Commission's principles is that Medicare quality programs should reward providers based on clear, absolute, and prospectively set performance targets rather than score providers relative to one another

(as in the tournament model). Under a tournament model, a provider's reward or penalty depends only on its performance relative to the performance of other providers; thus, no hospital knows how its performance will be judged until after other hospitals' performance has been assessed. The HVIP is designed to reward or penalize a hospital based on the individual performance the hospital achieves relative to a prospectively set system of targets. Hospitals will know ahead of time how different levels of performance will translate into a performance score and payment adjustments. CMS should also give hospitals the opportunity to review the computation of the HVIP. Rewards are to be distributed based on a continuous scale (thereby minimizing payment "cliffs") so that hospitals with similar levels of performance receive similar financial rewards. Some argue that tournament models may be necessary for new measures for which performance data do not yet exist for setting appropriate targets. However, CMS addresses this concern in current quality programs by collecting and publicly reporting new measure results for a year or more before using them for payment.

Medicare can define the performance targets (i.e., set the performance scale) using different methods. For example, the continuous scale of targets can be set along a broad distribution of historical data so that most entities have the opportunity to earn credit for their performance. Medicare could also start the continuous scale of targets around a desired value to drive quality improvement above that value. Medicare can assess targets annually, and if needed, revise them depending on whether expectations for quality achievement are met. For example, for measures new to pay-for-performance, there is likely to be a greater increase in performance in the early years, so the targets could change annually. For other measures where achievement requires more than a year, the targets could be the same for a three-year period. In principle, the targets should be prospectively set and should encourage both high and low performers to improve.

In our HVIP model, hospitals earn points for their performance on quality metrics based on a continuous scale, starting at 0 and gradually increasing to 10 points. The scale stretches over almost the entire distribution of performance, giving both low-performing and top-performing hospitals an incentive to continue to achieve high-quality results. Table 15-1 (p. 436) presents a subset of the scale of points associated with performance targets in our HVIP model.

**TABLE
15-1****Illustration of point system to score performance on measures under our potential HVIP model**

	Risk-adjusted readmission rates (lower is better)	Risk-adjusted mortality rates (lower is better)	Relative Medicare spending per beneficiary (lower than 1 is better)	Patient experience composite (higher is better)	Standardized hospital-acquired conditions composite ratio (lower than 1 is better)
0 points	21% or above	14% or above	1.16 or above	79.26% or below	1.85 or above
2 points	19%	12%	1.11	80.67	1.65
4 points	17%	10.5%	1.04	83.44	1.27
6 points	14%	8.5%	0.98	86.22	0.90
8 points	12%	7%	0.91	89.00	0.52
10 points	10% or below	5% or below	0.84 or below	91.78 or above	0.14

Note: HVIP (hospital value incentive program). Each measure in the HVIP is continuously scored from 0 to 10 points; only a subset of points is displayed here. Lower rates are better for readmissions, mortality, Medicare spending per beneficiary (MSPB), and standardized hospital-acquired conditions (HAC) ratios; hospitals with lower rates on these measures receive more HVIP points. The MSPB value is based on the hospital's spending compared with the national mean. The patient experience composite is the average of all 10 Hospital Consumer Assessment of Healthcare Providers and Systems® measure results. The standardized HAC composite ratio is the average of a hospital's standardized infection ratios for up to six HAC measures.

Source: MedPAC analysis of Medicare fee-for-service hospital quality data, 2014–2017.

A hospital's total HVIP score is the average of all of its points earned across the five measure domains. The 2,875 hospitals included in our sample had a nearly normal distribution of total quality performance scores under our HVIP model (Figure 15-1).⁵

Table 15-2 (p. 438) presents average total HVIP and measure domain points earned by different groups of hospitals. On average, hospitals with a high share of beneficiaries with full dual eligibility for Medicare and Medicaid tend to do worse on readmissions (4.4 points vs. 5.9 points for hospitals with a low share of fully dual-eligible beneficiaries) and patient experience (4.7 points vs. 6.1 points for hospitals with a low share of fully dual-eligible beneficiaries). These differences in average scores may be due to differences in hospitals' financial resources or the social risk factors of hospital populations, such as the availability of primary care, housing stability, medication adherence, and mental health and substance use disorders. Based on the Commission's principles to avoid masking disparities in care, the HVIP accounts for these population differences by adjusting payment through peer grouping (rather than adjusting quality measure results).

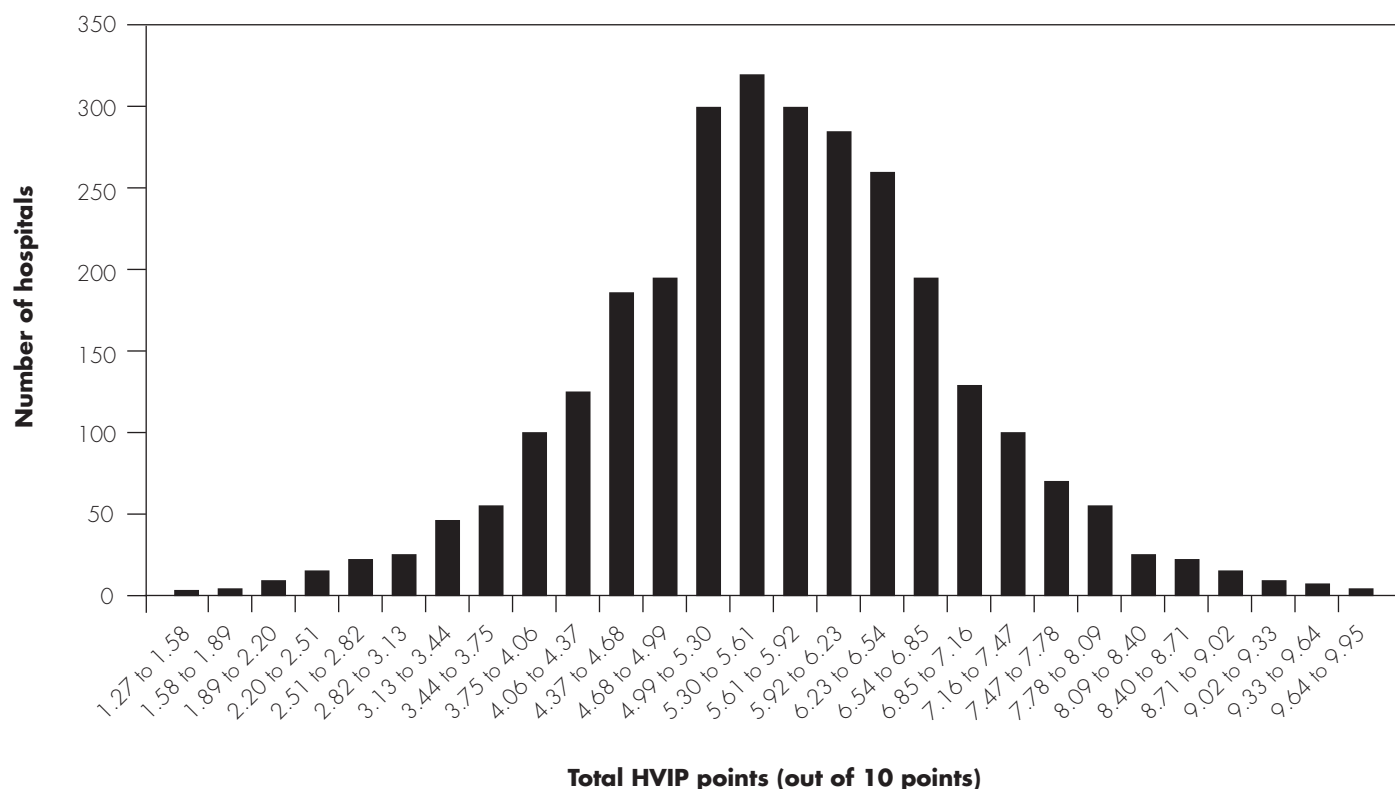
Converting HVIP points to payment adjustments using peer grouping

In measuring providers' performance on quality measures, the Commission contends that Medicare should take into account, as necessary, differences in providers' populations, including social risk factors. However, CMS should not adjust measure results for social risk factors because doing so can mask disparities in clinical performance, which could discourage reduction in disparities in access, quality, and outcomes compared with the status quo and could result in adjusting for factors within a hospital's control. Instead, Medicare should adjust performance payments through peer grouping so that, for purposes of rewards or penalties, each provider's performance is compared with that of its "peers"—defined as providers with a similar patient mix.⁶

At the same time, CMS should target technical assistance resources at low-performing providers, which can include hospitals caring for populations with more social risk factors that affect health outcomes (known as "social determinants of health"), such as housing, language and

**FIGURE
15-1**

Hospitals have a nearly normal distribution of total quality performance under the potential HVIP



Note: HVIP (hospital value incentive program). Hospitals receive 0 to 10 total HVIP points based on their performance on five equally weighted measure domains (readmissions, mortality, Medicare spending per beneficiary, patient experience composite, and standardized hospital-acquired conditions composite ratio). Our HVIP modeling scores hospitals using a continuous performance-to-points scale based on almost the entire distribution of current hospital performance, so each hospital has the potential to earn at least some points. There are 2,875 hospitals included in our HVIP model.

Source: MedPAC analysis of Medicare fee-for-service hospital quality data, 2014–2017.

culture proficiency, access to transportation, and food security. There are numerous examples of how hospitals have implemented successful programs to improve outcomes for these populations. Hospitals can help diabetic patients at discharge to understand their access to healthy foods and, if there is a need, connect patients to local food banks. Hospitals can assess community health needs and forge community partnerships to meet the needs of the community they serve by coordinating with, for example, transportation services and homeless shelters (American Hospital Association 2017). Although quality improvement can be more challenging in populations with greater social risk, there is evidence that some efforts to address social determinants of health succeed. For example, after the implementation of the HRRP, safety-net

hospitals improved readmission rates more rapidly than other hospitals (Salerno et al. 2017).

The HVIP implements the peer-group approach by distributing quality-based payments to hospitals classified in 10 peer groups. Each peer group has about the same number of hospitals (in our current model, about 287 hospitals), and hospitals are assigned to peer groups based on their share of Medicare patients who are fully dual-eligible beneficiaries. We used eligibility for full Medicaid benefits as a proxy for whether a hospital's patients are more difficult to treat because individuals with full Medicaid benefits have low income and are much more likely than other Medicare beneficiaries to be disabled, have multiple chronic conditions, and have functional

**TABLE
15-2****Illustrative total HVIP points by hospital characteristics**

Hospital group	Number of hospitals	Total HVIP points (score)	Average points (score)				
			Readmissions	Mortality	MSPB	Patient experience	HAC
All hospitals	2,875	5.7	5.2	6.4	5.2	5.0	5.9
Hospital size							
Large urban	1,179	5.4	4.7	7.0	4.5	5.0	5.7
Other urban	1,033	5.8	5.7	6.4	5.3	5.7	6.0
Rural	663	5.9	5.5	5.3	6.2	6.1	6.4
Teaching status							
Major teaching	301	5.1	3.7	7.1	4.7	4.6	5.1
Other teaching	757	5.6	5.2	6.8	4.9	5.1	6.1
Nonteaching	1,817	5.8	5.5	6.1	5.4	5.8	6.0
Ownership							
Nonprofit	1,781	5.9	5.5	6.7	5.4	5.7	6.0
For profit	714	5.3	4.7	6.1	4.5	5.0	5.8
Government	380	5.5	5.2	5.6	5.4	5.5	5.7
Share of fully dual-eligible beneficiaries							
Low	958	5.9	5.9	6.5	4.9	6.1	5.9
Moderate	958	5.7	5.4	6.2	5.2	5.7	6.1
High	959	5.4	4.4	6.4	5.4	4.7	5.8

Note: HVIP (hospital value incentive program), MSPB (Medicare spending per beneficiary), HAC (hospital-acquired conditions). Hospitals receive up to a total HVIP score of 10 points, which is the average of their performance on five equally weighted measures: risk-adjusted, unplanned readmissions; risk-adjusted 30-day postdischarge mortality; MSPB; patient experience composite, which is the average of all 10 Hospital Consumer Assessment of Healthcare Providers and Systems® measure results; and a standardized HAC composite ratio, which is the average of a hospital's standardized infection ratios for up to 6 HAC measures. Hospitals in the low share of fully dual-eligible beneficiaries group have an average of 11 percent of fully dual-eligible patients; hospitals in the moderate share of fully dual-eligible group have an average of 18 percent of fully dual-eligible patients; hospitals in the high share of fully dual-eligible beneficiaries group have an average of 33 percent of fully dual-eligible patients.

Source: MedPAC analysis of hospital quality data, 2014–2017.

impairments. To assign peer groups, we excluded patients with partial Medicaid benefits because their care needs are less complex. We expect that as more data and research about the effects of patient-level social risk factors on quality performance become available, the approaches to assigning providers to peer groups will evolve.

As shown in Table 15-3, the average share of a hospital's patient population represented by fully dual-eligible beneficiaries in each peer group ranged from less than 7

percent (Peer Group 1) to about 48 percent (Peer Group 10)—in other words, a difference of about 40 percentage points (Table 15-3). When defining the HVIP peer groups, policymakers could consider whether consolidating some of the middle peer groups that do not have large differences in shares of fully dual-eligible beneficiaries could improve the equity of payment adjustments among hospitals that serve relatively similar shares of such beneficiaries.

**TABLE
15-3**

Illustration of hospital payment adjustments using peer groups under potential HVIP model

Peer group	Average:		Enhanced pool of dollars based on 3 percent of hospitals' IPPS payments		Enhanced pool of dollars based on 6 percent of hospitals' IPPS payments	
	Share of fully dual-eligible beneficiaries	Total HVIP points	Pool of dollars (in millions)	Payment multiplier	Pool of dollars (in millions)	Payment multiplier
1 (lowest share of fully dual-eligible beneficiaries)	6.5%	6.3	\$308	0.50%	\$616	1.00%
2	10.7	5.8	332	0.52	664	1.04
3	12.9	5.7	405	0.52	810	1.04
4	15.0	5.7	333	0.52	665	1.04
5	17.0	5.7	313	0.52	626	1.04
6	19.0	5.6	316	0.54	633	1.10
7	21.8	5.6	259	0.54	518	1.10
8	25.0	5.5	253	0.56	505	1.11
9	30.0	5.3	286	0.56	573	1.12
10 (highest share of fully dual-eligible beneficiaries)	47.6	4.7	230	0.66	459	1.32

Note: HVIP (hospital value incentive program), IPPS (inpatient prospective payment system). There are about 287 hospitals in each of the 10 hospital peer groups. Peer groups are assigned based on the share of the hospital's Medicare patients who are fully eligible for Medicare and Medicaid benefits for a majority of the year. Fully dual-eligible beneficiaries qualify for a full range of Medicaid benefits. The 3 percent enhanced pool of dollars for each peer group includes a 2 percent withhold of each hospital's IPPS payments and 1 percent of each hospital's IPPS payments from the current-law hospital payment update. The 6 percent enhanced pool of dollars for each peer group includes a 5 percent withhold of each hospital's IPPS payments and 1 percent of each hospital's IPPS payments from the current-law hospital payment update. The payment multiplier is the percentage adjustment to payments per point.

Source: MedPAC analysis of hospital quality data, 2014–2017.

Distribute enhanced pool of dollars within each peer group

Our HVIP model is designed to redistribute a peer group's pool of dollars to hospitals in the peer group based on their performance on the quality measures.⁷ Each peer group's pool of dollars is based on two sources. One source is a percentage payment withhold from each of the peer group's inpatient payments. The VBP Program currently uses a 2 percent total base payment withhold. Other options under consideration include a 2 percent withhold amount that scales up to 5 percent over a two- to three-year period. Alternatively, CMS could immediately begin with a higher withhold amount (e.g., 5 percent). The second source for the pool of dollars is part of the current-law hospital payment update. For the HVIP model, we assumed that 0.8 percentage point of the total hospital payment update, which applies to both inpatient

and outpatient payment, would be added to the HVIP pool. This amount roughly translates to a little more than 1 percent of inpatient spending. We therefore modeled hospital performance using a pool of dollars based on a 2 percent withhold and 1 percent of total base inpatient spending (or a 3 percent pool), as well as a 5 percent withhold and 1 percent of total base spending (or a 6 percent pool). By eliminating the current readmissions penalty program and hospital-acquired condition programs, hospitals will no longer face those penalties in their hospital payment rates. Therefore, the HVIP will result in higher spending than under current law.

In our HVIP model, we followed five steps to convert performance points to payment adjustments based on the 3 percent and 6 percent pools of dollars, using currently available hospital quality and payment data. (See text box

**TABLE
15-4****Illustrative HVIP payment adjustments by hospital peer groups**

Peer group	Enhanced pool of dollars based on 3 percent of hospital's IPPS payments		Enhanced pool of dollars based on 6 percent of hospital's IPPS payments	
	Net payment adjustment (after 2 percent withhold)	Bonus payment as a percentage of withhold	Net payment adjustment (after 5 percent withhold)	Bonus payment as a percentage of withhold
1 (lowest share of fully dual-eligible beneficiaries)	-0.43% to 2.97%	79% to 248%	-1.85% to 4.93%	63% to 199%
2	-0.28 to 2.64	86 to 232	-1.55 to 4.28	69 to 186
3	-0.45 to 2.63	78 to 231	-1.89 to 4.26	62 to 185
4	-0.96 to 2.54	52 to 227	-2.92 to 4.08	42 to 182
5	-0.65 to 2.42	67 to 221	-2.31 to 3.85	54 to 177
6	-0.85 to 2.65	57 to 233	-2.30 to 4.31	46 to 186
7	-0.31 to 2.58	65 to 229	-2.42 to 4.17	52 to 183
8	-1.08 to 3.01	46 to 250	-3.16 to 5.01	37 to 200
9	-1.27 to 3.01	37 to 251	-3.53 to 5.02	37 to 200
10 (highest share of fully dual-eligible beneficiaries)	-1.16 to 4.14	42 to 307	-3.32 to 7.28	34 to 246

Note: HVIP (hospital value incentive program), IPPS (inpatient prospective payment system). There are about 287 hospitals in each of the 10 hospital peer groups. Peer groups are assigned based on the share of the hospital's Medicare patients who are fully eligible for Medicare and Medicaid benefits for a majority of the year. Fully dual-eligible beneficiaries qualify for a full range of Medicaid benefits. The 3 percent enhanced pool of dollars for each peer group includes a 2 percent withhold of each hospital's IPPS payments and 1 percent of each hospital's IPPS payments from the current-law hospital payment update. The 6 percent enhanced pool of dollars for each peer group includes a 5 percent withhold of each hospital's IPPS payments and 1 percent of each hospital's IPPS payments from the current-law hospital payment update.

Source: MedPAC analysis of hospital quality data, 2014–2017.

describing the process to convert each hospital's HVIP points to a quality-based payment adjustment, pp. 442–443.) Overall, we found that it was feasible to compute incentive payments that support the Commission's HVIP goals.

After scoring each hospital on the same continuous performance-to-points scale, we divided the 2,875 hospitals in our HVIP sample into 10 equal-sized peer groups based on the share of a hospital's patient population represented by fully dual-eligible Medicare beneficiaries (text box Steps 1 and 2). The average share of a hospital's patient population represented by fully dual-eligible Medicare beneficiaries in each peer group ranged from less than 7 percent (Peer Group 1) to about 48 percent (Peer Group 10) (Table 15-3, p. 439). The average total HVIP points that hospitals in each peer group received ranged from 6.3 (Peer Group 1) to 4.7 (Peer Group 10). Peer Group 10 had fewer total HVIP

points mainly because of higher average readmission rates and lower patient experience ratings compared with Peer Group 1 hospitals. Although Peer Group 10's point total was lower on average, some hospitals in the peer group were high performers and received more HVIP points than the average for all hospitals. Nevertheless, while hospitals with high shares of fully dual-eligible beneficiaries on average earn fewer HVIP points, for any given level of performance they receive a higher bonus payment (e.g., percent payment adjustment per HVIP point) than hospitals with few fully dual-eligible beneficiaries (Table 15-3, p. 439).

For each peer group, we calculated a pool of dollars for expected HVIP payments based on both 3 percent and 6 percent of the peer-group hospitals' combined base inpatient prospective payment system (IPPS) payments (text box Step 3). Intrinsic to the peer group's pool of

dollars is the number of discharges for that group's hospitals, so the pool of dollars is smaller for those peer groups that have hospitals with fewer discharges and thus lower aggregate IPPS base payments to be used in the withhold calculation. Under the 3 percent pool of dollars option, a total of \$3.04 billion would be distributed to hospitals based on their HVIP points. The withhold pool for each peer group ranged from about \$230 million (Peer Group 10) to \$405 million (Peer Group 3) (Table 15-3, p. 439).

For each peer group, we also calculated the payment multiplier, or the percentage adjustment to payments per point, which converts a hospital's total HVIP points to dollars and results in spending the 3 percent or 6 percent pool of dollars for each group (text box Step 4). For the 3 percent pool of dollars (2 percent withhold), the payment multiplier ranged from 0.50 percent (Peer Group 1) to 0.66 percent (Peer Group 10) (Table 15-3, p. 439). In other words, high-performing hospitals in Peer Group 10 would have the potential to earn a slightly higher payment adjustment per performance point compared with the other groups because the payment multiplier for Peer Group 10 is higher than for the other groups. This potential is also true for the 6 percent pool of dollars.

For both the 3 percent and 6 percent enhanced pools of dollars, we calculated each hospital's payment adjustment using its total HVIP points and its peer group's payment multiplier (text box Step 5). Under a 3 percent pool of dollars, a hospital's net payment adjustment ranged from -1.27 percent to 4.14 percent. Hospitals would recover from 37 percent to 307 percent of their 2 percent withhold (Table 15-4). Hospitals in aggregate would receive about 1 percent more from the HVIP than they put into the program. This result is due to the enhanced funding of the pool with dollars from the fiscal year 2020 current-law update.

Under a 6 percent pool of dollars, a hospital's net payment adjustment ranged from -3.53 percent to 7.28 percent (Table 15-4). Hospitals would recover 34 percent to 246 percent of their 5 percent withhold. Like the 3 percent pool of dollars, hospitals in aggregate would receive about 1 percent more from the HVIP than they put into the program. For both the 3 percent and 6 percent pools of dollars, the largest rewards are within Peer Group 10 because those hospitals have the largest payment multipliers. Hospitals in this peer group have the potential to earn a greater reward for better performance than hospitals in other peer groups.

Our HVIP modeling scores hospitals using a continuous performance-to-points scale based on almost the entire distribution of current hospital performance, so each hospital has the potential to earn points and be rewarded. Using either a 3 percent or 6 percent pool of dollars in our modeling, the vast majority of hospitals would receive more than the withhold because the pool of dollars is enhanced by a portion of the hospital payment update. More than half of hospitals would receive a reward greater than a 1 percent net payment adjustment. As discussed in an earlier section, Medicare can define the HVIP performance scale using different methods, for example, around a desired value, which can change the distribution of hospitals being rewarded.

Comparison of HVIP model to existing hospital quality programs

As we reported in June 2018, we examined differences between hospital performance in the existing programs and our HVIP model. To compare performance, we assigned hospitals to quintiles based on their total amount of rewards or penalties in the existing programs and assigned them to quintiles based on their payment adjustments under the HVIP model using both the 3 percent and 6 percent pool of dollars. We found that, with a 3 percent pool, about 30 percent of hospitals were in the same quintile under both the existing programs and the HVIP model, while about 35 percent were in the same quintile in both programs when the HVIP used a 6 percent pool. About 70 percent to 73 percent were in the same quintile or within one quintile under the existing program and the HVIP model (for both 3 percent and 6 percent pools). Four key factors drove large changes: the enhanced pool of dollars, peer grouping, the reduction in maximum penalties due to condition-specific readmissions in the HRRP, and the heavier weighting of patient experience in the HVIP compared with the VBP Program.

Effect of peer grouping on reducing disparities among hospitals

Our HVIP model uses a small set of measures and a continuous performance-to-points scale, and it converts those points to payment adjustments relative to groups of hospitals that serve similar shares of fully dual-eligible populations (hospital peer groups). Since one goal of an HVIP is to adjust payments to account for differences in

Using peer groups to convert hospital value incentive program points to rewards and penalties

The Commission's model of the new hospital value incentive program (HVIP) distributes quality-based payments to hospitals classified in 10 peer groups. Hospitals are assigned to peer groups based on their share of Medicare patients who are also fully eligible for Medicaid (Medicaid eligibility being used as a proxy for low income). Each peer group has about the same number of hospitals and an enhanced pool of dollars based on a payment withhold from each of the group's hospitals and a portion of the current-law hospital payment update. (We modeled 3 percent and 6 percent pools of dollars based on a 2 percent and 5 percent payment withhold, respectively, and about 1 percent of payment from the current-law update.) The pool of dollars is redistributed to the peer group's hospitals based on their quality performance.

We followed five steps to convert each hospital's quality measure performance to a payment adjustment that provides rewards or penalties.

Step 1: Convert each hospital's performance on quality measures to total HVIP points based on a continuous performance-to-points scale. Every hospital is scored on the same scale.

Step 2: For each hospital, calculate the share of Medicare patient discharges that are fully eligible for Medicaid. Divide hospitals into 10 equal-sized peer groups based on the hospital population's share of fully dual-eligible patients.

Step 3: For each peer group, create an enhanced pool of dollars of expected HVIP payments to hospitals, based on a specified withhold from each of the group's hospitals (e.g., 2 percent or 5 percent of each hospital's base inpatient prospective payment system (IPPS) payments), and a portion of the current-law hospital payment update (e.g., about 1 percent of each hospital's base IPPS payments).

Step 4: For each peer group, calculate the payment multiplier or percentage adjustment to payment per HVIP point, which converts total HVIP points to dollars and results in spending the group's enhanced pool of dollars defined in Step 3.

Point multiplier = HVIP pool for peer group / sum of (each hospital's base IPPS payments × hospital's total HVIP points)

Step 5: Compute each hospital's adjustment for the coming year based on past performance and its peer group's point multiplier.

Hospital's HVIP-based adjustment = payment multiplier × hospital's total HVIP points.

Table 15-5 illustrates the conversion of HVIP points to payment adjustments using peer grouping. In this example, Peer Group 1 has two hospitals, Hospital A and Hospital B. Hospital A has higher total HVIP performance compared with Hospital B. The two hospitals are assigned to the same peer group because they have a similar share of fully dual-eligible

(continued next page)

social risk factors, we examined how hospitals serving large shares of low-income patients performed. Figure 15-2 (p. 444) compares the existing quality payment program adjustments with the HVIP model's payment adjustments by peer group. Under the existing programs, Peer Group 1 (lowest share of fully dual-eligible beneficiaries) hospitals receive a -0.54 percentage point payment adjustment, while Peer Group 10 (highest share of fully dual-eligible beneficiaries) hospitals receive a -1.34 percentage point

adjustment, on average. For the HVIP, whether using a 3 percent or 6 percent pool of dollars, aggregate payment adjustments are 1 percent within each peer group because the pools are calculated and distributed within the group and because the enhanced pool of dollars includes about 1 percent of the current-law update. Thus, compared with the existing quality payment programs, the HVIP approach makes payment adjustments more equitable among hospitals that serve different populations.

Using peer groups to convert hospital value incentive program points to rewards and penalties (cont.)

beneficiaries. We withhold 2 percent of each of the hospital's total base IPPS payments. We also add 1 percent of IPPS payments to the withhold amount to create an enhanced pool of dollars from a portion of the current-law update. Since Hospital A has fewer discharges, its contribution to the pool of dollars is less than Hospital B's contribution. The total HVIP enhanced bonus pool to be redistributed for this peer group is equivalent to 3 percent of combined payments to the two hospitals (\$1.95 million). The payment multiplier is calculated, which, after conversion to dollars, results in recovering the entire \$1.95 million

withhold dollars. For Peer Group 1, each HVIP point earns a 0.39 percent payment adjustment. Thus, Hospital A earns a payment adjustment of 3.90 percent, which is equal to \$195,000 (or a reward of \$95,000 greater than the hospital's withhold) (Step 5). Hospital B earns a payment adjustment of 2.93 percent, which is equal to \$1,755,000. Both hospitals receive a reward, but relative to the 2 percent withhold, Hospital A has a greater positive payment adjustment because its performance is higher. The entire \$1.95 million pool is distributed to the hospitals in the peer group. ■

**TABLE
15-5**

Example of converting HVIP points to payment adjustments for a peer group's hospitals

	Peer Group 1	
	Hospital A (500 discharges)	Hospital B (5,000 discharges)
HVIP points (Step 1)	10.0	7.5
Total base IPPS payments	\$5,000,000	\$60,000,000
2 percent withhold of IPPS payments	\$100,000	\$1,200,000
1 percent of IPPS payments from current-law payment update	\$50,000	\$600,000
Total HVIP enhanced pool of dollars for peer group (3 percent of IPPS payments) (Step 3)	\$1,950,000	
Payment multiplier (Step 4)	0.39% adjustment per point	
Hospital HVIP-based adjustment (Step 5)	3.90% (\$195,000)	2.93% (\$1,755,000)
Reward or penalty relative to 2 percent withhold	+1.90% (+\$95,000)	+0.93% (+\$555,000)

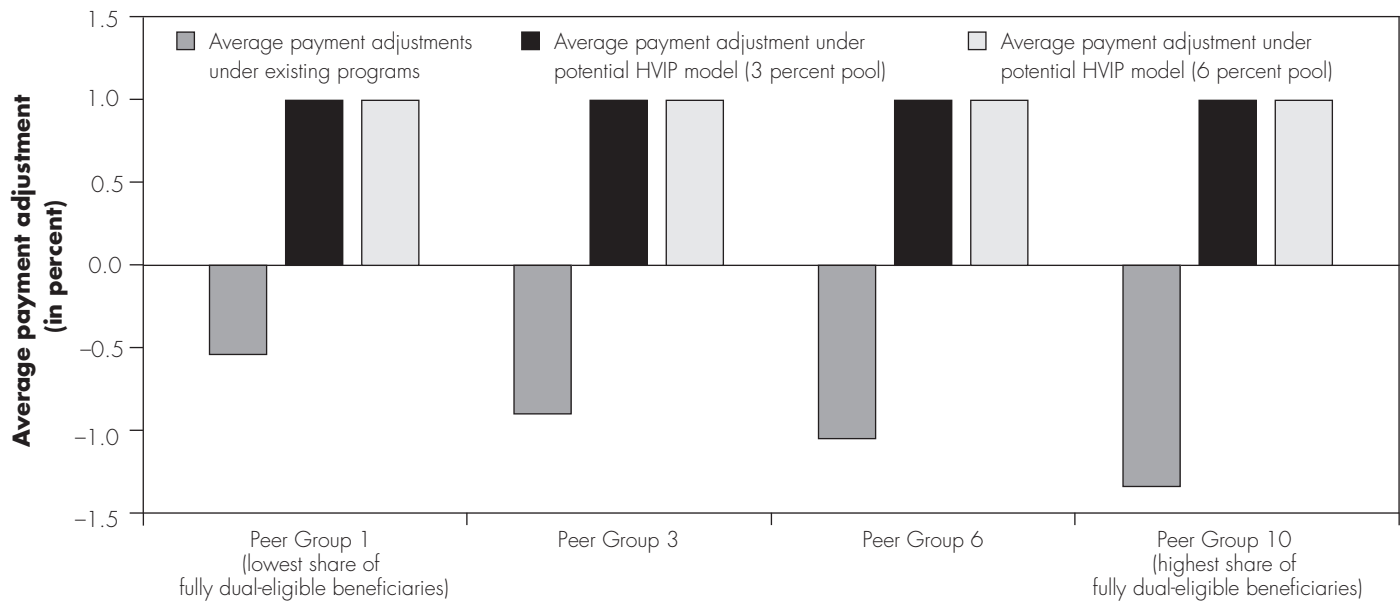
Note: HVIP (hospital value incentive program), IPPS (inpatient prospective payment system). This example assumes the peer group has two hospitals (Step 2).

We also compared HVIP payments for other categories of hospitals with existing quality programs. Under the HVIP, large urban hospitals and major teaching hospitals would, on average, receive rewards rather than the penalties they receive under the current programs. For example, major teaching hospitals have a -1.16 percentage point penalty under current programs; under the HVIP, with a 3 percent pool of dollars or a 6 percent pool of dollars,

teaching hospitals would receive positive adjustments of a 0.84 percentage point reward or a 0.92 percentage point reward, respectively (Table 15-6, p. 445). In addition, under the HVIP, rural and nonteaching hospitals on average would receive higher rewards than large urban and major teaching hospitals. For example, rural hospitals, which currently have a -0.52 percentage point payment adjustment on average, would have a 1.19 percentage point positive adjustment under the HVIP based on a 3

**FIGURE
15-2**

Compared with existing quality payment programs, the potential HVIP makes payment adjustments more equitable for hospitals grouped by share of fully dual-eligible beneficiaries



Note: HVIP (hospital value incentive program). The existing quality programs include the Hospital Readmissions Reduction Program (HRRP), Hospital-Acquired Condition Reduction Program (HACRP), and Hospital Value-based Purchasing (VBP) Program. The HRRP and HACRP are penalties, and the VBP Program is budget neutral. The average HVIP adjustment is the sum of each hospital's HVIP adjustment after the withhold divided by the sum of each hospital's base payment. The HVIP is budget neutral. Peer groups are assigned based on the share of the hospital's Medicare patients who are fully eligible for Medicare and Medicaid benefits for a majority of the year. Fully dual-eligible beneficiaries qualify for the full range of Medicaid benefits.

Source: MedPAC analysis of Medicare fee-for-service hospital quality data, 2014–2017.

percent pool and a 1.39 percent positive adjustment with a 6 percent HVIP pool of dollars.

Relatively efficient providers (as defined by the Commission) also receive more of a reward from the HVIP compared with other hospitals. Under the HVIP model with a 3 percent pool of dollars, efficient hospitals would receive, on average, a 1.23 percentage point reward, while less efficient hospitals would receive a 0.96 percentage point reward. There is more of a difference between the HVIP payment adjustments when using a 6 percent pool of dollars. Efficient providers would receive a 1.46 percentage point reward, while less efficient hospitals would receive, on average, a 0.92 percent payment adjustment. As seen with the peer grouping, compared with the existing quality payment programs, the HVIP approach makes payment adjustments more equitable

among hospitals that serve different populations and hospitals deemed more efficient than others.

Recommendation to redesign hospital quality incentive programs

Consistent with the Commission's principles, the HVIP links payment to quality of care to reward providers for offering high-quality care to beneficiaries. A single quality payment program for hospitals, such as our HVIP model, would be simpler to administer and would produce more equitable results compared with the existing quality payment programs. The HVIP, as a single program, would eliminate the complexity of overlapping program requirements, would focus on outcomes, and would

**TABLE
15-6****Illustrative comparison of existing quality programs and potential HVIP payment adjustments**

Hospital group	Number of hospitals	Current quality payment adjustments	HVIP payment adjustment after 2% withhold (3% pool)	HVIP payment adjustment after 5% withhold (6% pool)
All hospitals	2,875	-0.93%	1.00%	1.00%
Hospital size				
Large urban	1,179	-1.01	0.93	0.85
Other urban	1,033	-0.92	1.05	1.09
Rural	663	-0.52	1.19	1.39
Teaching status				
Major teaching	301	-1.16	0.84	0.92
Other teaching	757	-0.99	1.00	1.00
Nonteaching	1,817	-0.73	1.05	1.10
Fully dual-eligible peer groups				
Peer Group 1 (lowest share)	286	-0.54	1.0	1.0
Peer Group 3	287	-0.88	1.0	1.0
Peer Group 6	288	-1.02	1.0	1.0
Peer Group 10 (highest share)	287	-1.34	1.0	1.0
Ownership				
Nonprofit	1,781	-0.88	1.06	1.13
For profit	714	-1.10	0.43	0.71
Government	380	-0.99	1.00	1.00
Efficient providers				
Relatively efficient hospitals	328	-0.60	1.23	1.46
Less efficient hospitals	2,547	-1.02	0.96	0.92

Note: HVIP (hospital value incentive program). The current quality programs include the Hospital Readmissions Reduction Program (HRRP), Hospital-Acquired Condition Reduction Program (HACRP), and Hospital Value-based Purchasing (VBP) Program. The HRRP and HACRP impose penalties, and the VBP Program is budget neutral. The HVIP adjustment is the sum of each hospital's HVIP adjustment after the withhold divided by the sum of each hospital's base payment. Efficient hospitals, defined by the Commission, consistently do relatively well on cost and quality metrics (see criteria in Chapter 3 of this report).

Source: MedPAC analysis of hospital quality data, 2014–2017.

promote the coordination of care. It would also align with the Commission's principles for quality measurement by setting absolute value targets and using peer grouping to account for differences in provider populations. Under peer grouping in our HVIP model, differences in payment adjustments were reduced among providers serving populations of varying social risk factors. The HVIP,

with an enhanced pool of dollars, also begins to reward hospitals that efficiently deliver higher quality.

The following recommendation (repeated from Chapter 3 of this report) would increase hospital payments by increasing the base payment rate and by increasing the average rewards hospitals receive under the potential Medicare hospital value incentive program.

RECOMMENDATION 15

The Congress should:

- **Replace Medicare's current hospital quality programs with a new hospital value incentive program (HVIP) that:**
 - includes a small set of population-based outcome, patient experience, and value measures;
 - scores all hospitals based on the same absolute and prospectively set performance targets;
 - accounts for differences in patients' social risk factors by distributing payment adjustments through peer grouping, and
- **For 2020, update the 2019 Medicare base payment rates for acute care hospitals by 2 percent. The difference between the update recommendation and the amount specified in current law should be used to increase payments in a new HVIP.**

Hospitals will be scored on their performance on quality and value measures, such as readmissions, mortality, patient experience, spending, and infection rates, against prospectively set performance-to-points scales (targets). In the HVIP, hospitals will have a percentage of their total base payment adjusted (penalty or reward) based on their performance.

The payment multiplier is determined within each separate peer group. Peer groups are defined by the social risk factors (for which we use full eligibility for both Medicare and Medicaid as a proxy) of the given hospital population. We expect that as more data and research about the effects of patient-level social risk factors on quality performance become available, the approaches to assigning providers to peer groups will evolve. Each peer group's percentage payment adjustments per HVIP point are prospectively set with the intent of distributing an entire pool of dollars to the peer group's hospitals based on the hospitals' past performance on the performance-to-points scale. The expected distributions could be set equal to the sum of (1) a projected percentage payment reduction in the base payment amount (e.g., 5 percent) from each hospital in the peer group and (2) the difference between the current law FY 2020 update (projected to be 2.8 percent) and the Commission's recommended update of 2 percent. Because the reduction in the update will be directed to the HVIP, the HVIP will be expected to distribute more in bonuses than the amount withheld. To implement the HVIP for FY 2020, the Congress would need to create the HVIP in legislation in the spring of 2019. CMS would then use the

FY 2020 IPPS rule-making process, which occurs in the late spring and summer of 2019, to implement the HVIP.⁸ Until the HVIP is implemented, hospitals would continue to be evaluated using the four current quality reward programs.

RATIONALE 15

This recommendation would replace current hospital quality programs, which overlap and are unduly complex. A single quality payment program for hospitals, such as our HVIP model, would be simpler to administer and would produce more equitable results compared with the existing quality payment programs. The HVIP, as a single program, would eliminate the complexity of overlapping program requirements, would focus on outcomes, and would promote the coordination of care. It would also align with the Commission's principles for quality measurement by setting absolute value targets and using peer grouping to account for differences in provider populations. Under peer grouping in our HVIP model, differences in payment adjustments were reduced among providers serving populations with varying social risk factors.

IMPLICATIONS 15

Spending

- The recommendation would increase inpatient spending relative to current law due to the elimination of the Hospital Readmissions Reduction Program, Hospital-Acquired Conditions Reduction Program, and Inpatient Quality Reporting Program. The expected increase in spending would be between \$750 million and \$2 billion over one year and between \$5 billion and \$10 billion over five years.

Beneficiary and provider

- The recommendation would maintain beneficiaries' access to care and providers' willingness to treat Medicare beneficiaries. Beneficiaries may benefit from hospitals' enhanced incentives to improve the quality of care they provide. The recommendation would also reduce the reporting burden on providers and, relative to current law, make payment adjustments more equitable among hospitals that serve populations with different social risk factors. ■

Endnotes

- 1 The HVIP pool of dollars in future years would consist of the withhold plus about an additional 0.8 percent of base inpatient and outpatient payments, which is about 1.0 percent of inpatient payments.
- 2 The IQRP was mandated by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 and updated by the Patient Protection and Affordable Care Act of 2010 (PPACA). The HRRP, VBP Program, and HACRP are mandated in PPACA.
- 3 CMS calculates claims-based mortality, readmissions, and MSPB measures. CMS oversees the administration of the Hospital Consumer Assessment of Healthcare Providers and Systems[®] (HCAHPS[®]) patient experience survey (including certifying survey vendors and developing standardized data collection and sampling protocols). Hospitals work with a survey vendor or follow the standardized protocols themselves to collect and report the core and supplemental experience data from their patients. CMS calculates HAC rates using chart-abstracted surveillance data hospitals report to the Centers for Disease Control and Prevention's National Healthcare Safety Network database.
- 4 CAHPS[®] is a registered trademark of the Agency for Healthcare Research and Quality, a U.S. government agency.
- 5 The illustrative HVIP model sample uses inpatient prospective payment system (IPPS) hospitals. It does not include the following hospitals: critical access hospitals, hospitals in Maryland and Puerto Rico, hospitals with 100 or fewer IPPS discharges in 2016, or hospitals with missing descriptive information or quality results (e.g., missing HCAHPS or MSPB data available from CMS's Hospital Compare datasets or insufficient claims to calculate mortality and readmission rates).
- 6 Considering suggestions from the Commission and the recent requirement legislated in the 21st Century Cures Act of 2016, CMS is implementing a peer-group scoring model, using five peer groups, in the HRRP. Others have tested and found that the peer-grouping approach adequately accounts for differences among providers serving populations with social risk factors (Office of the Assistant Secretary for Planning and Evaluation 2016, Samson et al. 2018).
- 7 Like the current VBP Program, HACRP, and HRRP, CMS can implement the withhold as a prospective adjustment to rates based on a hospital's past performance. An alternative would be for CMS to implement the withhold through retrospective claims adjudication.
- 8 Given the tight time frame for a FY 2020 implementation, CMS may need to use previous years' performance on existing measures to calculate HVIP performance targets, payment multipliers, and hospital payment adjustments. During the FY 2020 rule-making process, CMS would also, at a minimum, need to publish prospectively set HVIP targets and payment multipliers that will be used to determine FY 2021 HVIP payment adjustments.

References

- Agency for Healthcare Research and Quality. 2016. *National scorecard on rates of hospital-acquired conditions 2010 to 2015: Interim data from national efforts to make health care safer*. Rockville, MD: AHRQ. <http://www.ahrq.gov/professionals/quality-patient-safety/pfp/2015-interim.html>.
- American Hospital Association. 2017. *A playbook for fostering hospital community partnerships to build a culture of health*. Chicago, IL: AHA.
- Calderwood, M. S., S. S. Huang, V. Keller, et al. 2017. Variable case detection and many unreported cases of surgical-site infection following colon surgery and abdominal hysterectomy in a statewide validation. *Infection Control and Hospital Epidemiology* 38, no. 9 (September): 1091–1097.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018. Medicare program; hospital inpatient prospective payment systems for acute care hospitals and the long term care hospital prospective payment system and policy changes and fiscal year 2019 rates; quality reporting requirements for specific providers; Medicare and Medicaid electronic health record (EHR) incentive programs (promoting interoperability programs) requirements for eligible hospitals, critical access hospitals, and eligible professionals; Medicare cost reporting requirements; and physician certification and recertification of claims Final rule. *Federal Register* 83, no. 160 (August 17): 41144–41784.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017. HCAHPS patient-level correlations table. <http://www.hcahpsonline.org/globalassets/hcahps/summary-analyses/patient-level/july-2015--june-2016-discharges.pdf>.
- Chatterjee, P., T. C. Tsai, and A. K. Jha. 2015. Delivering value by focusing on patient experience. *American Journal of Managed Care* 21, no. 10 (October): 735–737.
- Medicare Payment Advisory Commission. 2018. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016a. Letter to the Acting Administrator of the Centers for Medicare and Medicaid Services regarding the hospital star rating system. September 22.
- Medicare Payment Advisory Commission. 2016b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Office of the Assistant Secretary for Planning and Evaluation, Department of Health and Human Services. 2016. *Report to Congress: Social risk factors and performance under Medicare's value-based purchasing programs*. Washington, DC: Office of the ASPE.
- Salerno, A. M., L. I. Horwitz, J. Y. Kwon, et al. 2017. Trends in readmission rates for safety net hospitals and non-safety net hospitals in the era of the US Hospital Readmission Reduction Program: A retrospective time series analysis using Medicare administrative claims data from 2008 to 2015. *BMJ Open* 7, no. 7 (July 13): e016149.
- Samson, L. W., L. M. Chen, A. M. Epstein, et al. 2018. Dually enrolled beneficiaries have higher episode costs on the Medicare Spending Per Beneficiary measure. *Health Affairs* 37, no. 1 (January): 86–94.

C H A P T E R

16

**Mandated report:
Opioids and alternatives in
hospital settings—
Payments, incentives,
and Medicare data**

Mandated report: Opioids and alternatives in hospital settings—Payments, incentives, and Medicare data

Chapter summary

The Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment (SUPPORT) for Patients and Communities Act of 2018 includes a mandate for the Commission to describe how Medicare pays for both opioid and non-opioid pain management treatments in hospital inpatient and outpatient settings, incentives under the inpatient and outpatient prospective payment systems for prescribing opioids and non-opioids, and how opioid use is monitored through Medicare claims data. The Commission's report is due by March 15, 2019.

Medicare uses bundled payments to pay for pain management drugs and services in both the inpatient and outpatient settings. Bundled payments are applied differently in the two settings. The inpatient prospective payment system (IPPS) assigns stays to categories (Medicare severity–diagnosis related groups) based on patients' conditions and sets payment bundles that reflect the average costs of providing *all* items and services supplied during the stay. The outpatient prospective payment system (OPPS) also groups services into categories (ambulatory payment classifications), but on the basis of clinical and cost similarity, and sets payment bundles to cover the costs of providing *integral* items and services along with the primary service. Additional items and services are paid separately or are not paid under the OPPS.

In this chapter

- How Medicare pays for opioids and non-opioid alternatives in hospital settings
- Incentives for prescribing opioids and non-opioid alternatives in hospital settings
- Medicare monitoring of opioid use through claims and other data
- Policy options for tracking opioid use in hospital settings

Some observers have questioned whether Medicare’s hospital payment systems create financial incentives for providers to choose opioids over non-opioid alternatives. The IPPS and OPPS payment bundles create a financial incentive for hospitals to be cost conscious in selecting items and services. Medicare’s quality measurement and reporting programs, along with providers’ clinical expertise and professionalism, are designed to balance this financial incentive. Ideally, these balanced incentives result in high-quality outcomes at the best prices for beneficiaries and other taxpayers. However, if opioids were systematically cheaper than non-opioid alternatives, providers might be more inclined to opt for them, especially if doing so did not affect performance on quality measures. We analyzed publicly available prices for opioid and non-opioid alternatives commonly used in the hospital setting to assess the extent of any difference in prices between the two categories of drugs. We found that both opioids and non-opioids are available at a range of list prices, including expensive and inexpensive options for both. Thus, there is no clear indication that Medicare’s IPPS and OPPS discriminate against non-opioids. Indeed, hospitals that select more expensive options for clinical reasons have tools available to them, such as reducing length of stay, to partially or fully offset these costs.

Our study is not intended to be an assessment of the clinical appropriateness of the use of opioids versus non-opioid alternatives. Clinicians’ decisions about which analgesic drugs to prescribe are based on a multitude of patient-specific factors. Furthermore, we recognize that there are incentives in addition to financial incentives that may have an even greater influence on clinicians’ choice of pain treatments, such as effects on patient experience, length of stay, need for additional nursing services, and—most important—the management of potential risks and clinical efficacy. However, these motivations are not unique to the Medicare IPPS and OPPS, so to comply with the mandate’s due date, we focused on the extent to which these payment systems introduce financial incentives.

CMS monitors opioid use through claims and other data in the Part D program. The tools used in the Part D program include the Medicare Part D Overutilization Monitoring System, which ensures that Part D plan sponsors implement the opioid overutilization policy effectively; the quality measures to track trends in opioid overuse across the Medicare Part D program and drive performance improvement among plan sponsors; and the publicly available Medicare Part D opioid prescribing mapping tool.

Medicare does not operate similar tracking programs in Part A or Part B. Given concerns about the opioid crisis, policymakers may wish to direct CMS to track

opioid use in hospital inpatient and outpatient settings. If Medicare were to undertake an opioid monitoring program in Part A and Part B, there are structural differences from Part D that would require adaptation of CMS's current monitoring program. There are at least three options for implementing a Part A and Part B opioid tracking program: (1) require prescription drug event-type reporting, (2) include all pain management drugs in Part A and Part B claims, and (3) link Part D opioid use to hospitals responsible for initiation. ■

Mandate for this report: The SUPPORT for Patients and Communities Act of 2018

On October 24, 2018, the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment (SUPPORT) for Patients and Communities Act became law. The SUPPORT Act requires the Medicare Payment Advisory Commission to report on opioid payment, adverse incentives, and data under the Medicare program by March 15, 2019. Specifically, the Act calls for the Commission to provide the following:

- a description of how the Medicare program pays for pain management treatments (both opioid and non-opioid pain management alternatives) in both inpatient and outpatient hospital settings;
- the identification of incentives under the hospital inpatient prospective payment system and incentives under the hospital outpatient prospective payment system for prescribing opioids and incentives under each system for prescribing non-opioid treatments, and recommendations as the Commission deems appropriate for addressing any of such incentives that are adverse incentives; and
- a description of how opioid use is tracked and monitored through Medicare claims data and other mechanisms and the identification of any areas in which further data and methods are needed for improving data and understanding opioid use. ■

Introduction

The Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment (SUPPORT) for Patients and Communities Act of 2018 requires the Commission to describe how Medicare pays for both opioid and non-opioid pain management treatments in the inpatient and outpatient hospital settings, any incentives under the inpatient and outpatient prospective payment systems for prescribing opioids and non-opioids, and how opioid use is monitored through Medicare claims data (see text box on the SUPPORT Act). The Commission's report is due March 15, 2019.

To meet the requirement of a mandated report, this chapter reviews how Medicare pays for opioids and non-opioid alternatives in inpatient and outpatient hospital settings. In addition, we present data on the extent to which the inpatient and outpatient prospective payment systems introduce financial incentives for prescribing opioids versus non-opioid alternatives and discuss options for addressing any adverse incentives. We also describe how Medicare monitors opioid use through claims and other data in Part D. Finally, we discuss policy options for monitoring opioid use in Part A and Part B.

How Medicare pays for opioids and non-opioid alternatives in hospital settings

Medicare uses bundled payments to pay for pain management drugs and services in both the inpatient and outpatient settings. Bundled payments are applied differently in the two settings. The inpatient prospective payment system (IPPS) assigns stays to categories on the basis of patients' conditions and sets payment bundles that reflect the average costs of providing *all* items and services supplied during the stay. In contrast, the outpatient prospective payment system (OPPS) groups services into categories on the basis of clinical and cost similarity and sets payment bundles to cover the costs of providing *integral* items and services along with the primary service. Additional items and services are paid separately or are not paid under the OPPS.

Inpatient hospital payment for opioids and non-opioid alternatives

Medicare Part A pays for drugs and other pain management services administered during an inpatient hospital stay through the IPPS. The IPPS sets payment

New medical services and technology payments

The inpatient prospective payment system includes a design feature to accommodate hospitals' adoption of innovative, expensive pain treatments. If a new pain drug or other pain management service is too costly to be assigned to an existing Medicare severity–diagnosis related group (MS–DRG), there is a mechanism for a special (additional) payment. Hospitals using certain cost-increasing medical services and technologies can apply for and receive add-on payments for new technologies. CMS evaluates applications by technology firms

and others for add-on payments based on criteria of newness, substantial clinical improvement, and the costliness of the service or technology beyond the level of the current MS–DRG payment amount. New-technology payments are additional to the MS–DRG payment and thus are not budget neutral.

To date, there have been no opioid or non-opioid drugs included on the inpatient new-technology add-on payment list. ■

rates to reflect the average costs that hospitals incur in furnishing care.¹ These costs include the provision of all items and services supplied by the hospital during the stay, including pain management.²

To account for the patient's needs, Medicare assigns discharges to Medicare severity–diagnosis related groups (MS–DRGs), which group patients with similar clinical conditions that are expected to require similar amounts of hospital resources. Each MS–DRG has a relative weight that reflects the expected relative costliness of inpatient treatment for patients in that group. Providers then have flexibility in determining the mix of items and services to provide for each stay.

CMS annually reviews the MS–DRG definitions to ensure that each group continues to include cases with clinically similar conditions requiring comparable amounts of inpatient resources. When the review shows that subsets of clinically similar cases within an MS–DRG consume significantly different amounts of resources, CMS can reassign them to different MS–DRGs with comparable resource use or create a new MS–DRG. There are special payments for services with insufficient data for CMS to assign them to an MS–DRG (see text box on new medical services and technology payments).

Outpatient hospital payment for opioids and non-opioid alternatives

Any covered nondrug pain management services employed during an outpatient visit are paid under

Part B through the OPPI. The OPPI sets payments for individual services (identified by Healthcare Common Procedure Coding System (known as HCPCS) codes) using a set of relative weights, a conversion factor (which translates the relative weights into dollar payment rates), and adjustments for geographic differences in input prices. CMS classifies individual services into ambulatory payment classifications (APCs) on the basis of clinical and cost similarity. All services included in an APC have the same payment rate. In each APC, CMS “packages” services and items integral to the primary service to create a global payment rate. In deciding which services to package, CMS considers comments from hospitals, hospital suppliers, and others. In response to these comments, CMS pays separately for corneal tissue acquisition costs, blood and blood products, and many drugs.

Over time, CMS has expanded the number of services that are included in APC payments for associated primary services. For example, beginning in 2014, CMS added certain clinical diagnostic laboratory tests and drugs, biologicals, and radiopharmaceuticals that function as supplies when used in a diagnostic test or surgical procedure to the list of OPPI packaged items and services. The intent of expanded packaging was to make hospitals more cost conscious regarding the services used in an outpatient visit. In a system that packages related services under a single global payment, hospitals have a financial incentive to furnish services most efficiently and to manage their resources with maximum flexibility.³

**TABLE
16-1**

How Medicare generally pays for pain management, including prescription drugs, in the inpatient and outpatient hospital settings

Setting	Payment mechanism
Inpatient hospital	
Nondrug items and services	Part A IPPS sets one bundled payment for all items and services for each MS-DRG category*
Prescription drugs	Part A IPPS sets one bundled payment for all items and services for each MS-DRG category
Outpatient hospital	
Nondrug items and services	Part B OPPOS sets one bundled payment rate for primary service plus items and services integral to the primary service for each APC category**
Prescription drugs	
Directly related and integral to the procedure or treatment	Part B OPPOS sets one bundled payment rate for primary service plus items and services integral to the primary service for each APC category
Not directly related and integral to the procedure or treatment—including when the drug itself is the treatment	Part D may pay for the drug, subject to plan requirements; otherwise, beneficiary is responsible for cost

Note: IPPS (inpatient prospective payment system), MS-DRG (Medicare severity–diagnosis related group), OPPOS (outpatient prospective payment system), APC (ambulatory payment classification).
 *Inpatient hospitals are eligible for designated new medical services and technology payments, which are in addition to the MS-DRG payment. No pain management drugs or services are currently approved for these payments.
 **Outpatient hospitals are eligible for designated new-technology APCs and pass-through payments. The only pain management drug or service currently approved for these payments is buprenorphine extended-release injections, which are used to treat opioid addiction.

Pain drugs administered during an outpatient visit may be paid under Part B or Part D. Medicare Part B covers drugs that are administered by infusion or injection in hospital outpatient departments, as well as drugs that are usually self-administered (e.g., taken orally) when they are “directly related and integral to a procedure or treatment and [are] required to be provided to a patient in order for a hospital to perform the procedure or treatment during a hospital outpatient encounter” (Centers for Medicare & Medicaid Services 2002). In these cases, the usually self-administered drug is treated as a packaged supply (Table 16-1). Usually self-administered drugs that do not meet these conditions are billed to the beneficiary and could be covered under Part D if the beneficiary is enrolled in Part D and their plan covers the drug and if other plan requirements (e.g., the hospital’s pharmacy is a participating pharmacy with the plan) are met.⁴

Determining which exact drugs meet the “directly related and integral” criterion is not straightforward and is

ultimately left to the discretion of individual Medicare administrative contractors (MACs).⁵ CMS guidance to MACs to help them determine whether drugs should be covered under the OPPOS is laid out in the *Medicare Benefit Policy Manual* (Centers for Medicare & Medicaid Services 2018d). The guidance notes that “[e]xcept for the applicable copayment, hospitals may not bill beneficiaries for these types of drugs because their costs, as supplies, are packaged into the payment for the procedure with which they are used.” Examples provided include sedatives administered in the preoperative area before a procedure and antibiotic ointments applied to a surgical incision at the end of a procedure. (Pain medications are not included as an example.) Drugs that do not meet the directly related or integral to a procedure criterion and therefore are not considered a packaged supply include drugs that a patient routinely takes (e.g., insulin, hypertension medication) and those for which “the drug itself is the treatment instead of being integral or directly related to the procedure, or facilitating the performance of or recovery from a

New-technology ambulatory payment classifications and pass-through payments

The outpatient prospective payment system (OPPS) includes two design features to accommodate hospitals' adoption of innovative, expensive pain treatments. CMS assigns some new services to "new-technology" ambulatory payment classifications (APCs) based only on similarity of resource use. CMS chose to establish new-technology APCs because some services were too new to be represented in the data the agency uses to develop the initial payment rates for the OPPS. Services generally remain in these APCs for two to three years while CMS collects the cost data necessary to develop payment rates for them.⁶ Each year, CMS determines which new services, if any, should be placed in new-technology

APCs. Payments for new-technology APCs are not subject to budget-neutrality adjustments, so they increase total OPPS spending.

In addition to new-technology APCs, pass-through payments are another way that the OPPS accounts for new technologies. In contrast to new-technology APCs—which are payments for individual services—pass-through payments are for specific drugs, biologicals, and devices that providers use in the delivery of services. The purpose of pass-through payments is to help ensure beneficiaries' access to technologies that are too new to be well represented in the data that CMS uses to set OPPS payment rates. ■

particular procedure." Examples of excluded drugs are pain medication given to a patient going to the emergency department with pain or to a patient developing a headache while receiving chemotherapy.

CMS guidance indicates that MACs may not pay for "any drug when it is administered on an outpatient emergency basis, if the drug is excluded because it is usually self-administered by the patient" (Centers for Medicare & Medicaid Services 2018d). Additionally, any drugs given to the patient for continued use at home (e.g., finishing the last of a three-day supply of opioids) are not paid under Part B.

When Part B does not cover a drug administered in the outpatient setting, the hospital usually charges the patient for the drug (Centers for Medicare & Medicaid Services 2017a).⁷ If the beneficiary has a Part D drug plan, the plan might pay for the drug if it is included in the plan's formulary. However, most hospital pharmacies do not participate in Medicare Part D, so beneficiaries would need to pay out of pocket for these drugs and submit a claim to their Part D drug plan for a refund. Part D plans can deny payment for the drug if they determine that the beneficiary could have reasonably obtained the drug from a participating network pharmacy (e.g., taken a dose of a drug that that was purchased from an in-network pharmacy

before an outpatient hospital appointment). Finally, if the drug is covered by the beneficiary's Part D drug plan, the plan might reimburse the beneficiary only for the in-network cost for the drug (minus any deductibles, copayments, or coinsurance). The beneficiary would then pay the difference between what the hospital charged and what the plan paid in addition to any applicable deductibles, copayments, or coinsurance. If the Part D plan denies payment for a drug, the beneficiary can apply for an exception.

Drugs that are covered under the OPPS (Part B) when administered in the hospital outpatient setting fall into two categories—those that are paid for separately and those that are packaged into the APC payment rate for the primary service. In final rules regarding APC packaging in 2015 and 2018, CMS stated, "We consider all items related to the surgical outcome and provided during the hospital stay in which the surgery is performed, including *postsurgical pain management drugs* [emphasis added], to be part of the surgery for purposes of our drug and biological surgical supply packaging policy" (Centers for Medicare & Medicaid Services 2017b, Centers for Medicare & Medicaid Services 2014).

Separately payable drugs have two categories: (1) pass-through, which includes drugs that are usually, but not

always, high cost and (2) separately payable, which includes drugs that exceed a per day cost threshold (\$125 in 2019) (Centers for Medicare & Medicaid Services 2018e). (See text box on new-technology APCs and pass-through payments.) Drugs can have pass-through status for two to three years. By statute, CMS is required to pay pass-through drugs at a rate of average sales price plus 6 percent (ASP + 6 percent). Manufacturers of drugs with Food and Drug Administration (FDA) approval can apply for pass-through status for new drugs or biologics whose cost is not insignificant in relation to the OPPS payments for the procedures or services associated with the new drug or biologic. The second category is non-pass-through separately payable, which includes established drugs whose costs exceed \$120 per day in 2018. For this category, CMS has discretion on the payment rates and has established a rate of ASP + 6 percent for those products, unless the hospital participates in the 340B Drug Pricing Program.⁸

CMS has approved several pain management drugs for pass-through status, but none that are used exclusively for pain management currently qualify under either separately payable drug category.^{9,10,11} Thus, when Part B pays for pain medications, including opioids and their alternatives, in the outpatient setting, the medications are generally treated as packaged supplies under the OPPS and not paid separately from the primary procedure or treatment.¹²

Nondrug pain management

While often more associated with chronic pain management, there are nondrug treatments for pain that hospitals can choose to employ in the inpatient and outpatient settings. For example, the Institute for Clinical and Economic Review reviewed studies of acupuncture, cognitive behavioral therapy, mindfulness-based stress reduction, and yoga and found with moderate certainty that all four yielded at least a small net health benefit for improvement in function and reduction in pain for chronic low back and neck pain (Institute for Clinical and Economic Review 2017). There may be opportunities to use nondrug pain management techniques such as these in the hospital setting for acute pain for some patients. CMS is reportedly considering the evidence for various treatment alternatives for pain, and any new findings could result in triggering a coverage determination process. Studies of postsurgery use of transcutaneous electrical nerve stimulation have shown reduction in pain intensity and analgesic use (Kerai et al. 2014). While none of these

nondrug pain treatments is currently paid for individually by Medicare, hospitals can opt to provide them under bundled payments.

Incentives for prescribing opioids and non-opioid alternatives in hospital settings

Some observers have questioned whether Medicare's payment systems might create financial incentives for providers to choose opioids over non-opioid alternatives. For example, the President's Commission on Combating Drug Addiction and the Opioid Crisis recommended that "CMS review and modify rate-setting policies that discourage the use of non-opioid treatments for pain, such as certain bundled payments that make alternative treatment options cost prohibitive for hospitals and doctors, particularly those options for treating immediate post-surgical pain" (President's Commission on Combating Drug Addiction and the Opioid Crisis 2017). The SUPPORT Act calls on the Medicare Payment Advisory Commission to identify any such incentive specific to the Medicare IPPS and OPPS. We recognize that there are additional incentives that may have an even greater influence on clinicians' choice of pain treatments, such as effects on patient experience, length of stay, need for additional nursing services, and—most important—the management of potential risks and clinical efficacy. However, these motivations are not unique to the Medicare IPPS and OPPS, so to comply with the mandate's due date, we focused on the extent to which these payment systems introduce financial incentives.

The IPPS and OPPS payment bundles are designed to give hospitals a financial incentive to be cost conscious in selecting items and services. This incentive is balanced by Medicare's quality measurement and reporting programs along with providers' clinical expertise and professionalism. Ideally, these balanced incentives result in high-quality outcomes for patients for the best prices for beneficiaries and other taxpayers.

Analysis of opioid and non-opioid prices

As mentioned earlier, the incentive under any prospective payment system is to use the most cost-effective inputs necessary to maintain good quality. As we also mentioned,

financial incentives are only one factor in determining how to address the need for pain medications in hospital settings; decisions regarding which medications to prescribe should be patient specific and can be influenced by multiple other factors.

To better understand the extent of any systemic financial incentives that would lead clinicians in hospital settings to prescribe opioids over non-opioid alternatives, we analyzed the difference in prices between opioid and non-opioid drugs commonly used in the inpatient and outpatient hospital settings. This analysis has a key caveat: We do not know the actual prices that hospitals paid for these drugs because hospitals do not report their drug acquisition costs. Average sales prices (ASPs), which are a weighted average of manufacturers' sales price for a drug for all purchasers net of price adjustments, are not available for many of the opioid and non-opioid drugs in our study. In lieu of true acquisition costs, we examined publicly available list prices: wholesale acquisition cost (WAC) and average wholesale price (AWP). WAC is the manufacturer's list price and does not incorporate prompt-pay or other discounts; it approximates what retail pharmacies pay wholesalers for single-source drugs. AWP is used as the basis for setting payment rates to pharmacies, but it is not a true representation of actual market prices for either generic or brand drug products: It is often compared with a "sticker price." Hospital (and other) pharmacies can negotiate drug prices, especially for generic and multisource drugs, and can choose which drugs to stock within the requirements of their hospital formulary.

There are several prescribing options for both opioid and non-opioid drugs, including their route of administration (e.g., oral, intravenous) and their dosage form (e.g., tablet, capsule, solution). In addition, opioids and non-opioids can be used in conjunction with one another. These drug combinations, or "cocktails," give prescribers flexibility in the choice of drug agents to treat pain and related symptoms and can mitigate the drawbacks of individual drugs in the cocktail without unduly sacrificing drug efficacy. For example, a lower dose of an opioid can be used along with a non-opioid to reduce the risk associated with the opioid while still achieving sufficient analgesic effect. This flexibility is important in the hospital setting because opioids are more often indicated for acute, severe pain than many non-opioid alternatives. While there are some recent studies that suggest similar analgesic effects of opioid and non-opioid drugs even for some cases of

moderate to severe pain, it is not clear that non-opioid alternatives can or should replace opioids for all cases of acute, severe pain (Hartford et al. 2019). The flexibility of drug cocktails also allows prescribers to vary the mix of drugs included over the course of a hospital stay. For example, immediately following a surgery, the cocktail could include a higher ratio of opioids than non-opioids. This ratio could shift in the days leading up to discharge.

The analysis includes the following pain drug categories:

- **Opioids (or full agonist opioids)** act by attaching to and activating opioid receptors on nerve cells in the brain, spinal cord, gastrointestinal tract, and other organs. Opioids mimic the effects of naturally occurring endorphins in the body; the resultant spike in dopamine not only reduces the perception of pain but also can manufacture a powerful sense of well-being and pleasure by affecting the brain's limbic reward system. Examples of full agonists include heroin, oxycodone, methadone, hydrocodone, morphine, and opium.
- **Opioid agonists/antagonists** are a heterogeneous group of drugs with moderate to strong analgesic activity comparable with that of the full agonist opioids but with a limited effective dose range. In general, opioid agonists/antagonists have relatively lower physical dependence potentials than full agonist opioids. The group includes drugs that act as agonists or partial agonists at one receptor and as antagonists at another (e.g., pentazocine, butorphanol, nalbuphine) and drugs acting as partial agonists at a single receptor (e.g., buprenorphine).
- **Nonsteroidal anti-inflammatory drugs (NSAIDs)** reduce inflammation but are not related to steroids, which also reduce inflammation. NSAIDs work by reducing the production of chemicals that promote inflammation, pain, and fever.
- **Additional non-opioid pain relievers and other drugs** that do not fall under the NSAID category are included in the analysis. These drugs can be used alone or in conjunction with others to address pain (e.g., sedatives, neurologic agents). The following additional drug categories are included in the analysis:
 - **Neurologic agents** are used to treat certain types of neuropathic pain (nerve pain).
 - **Sedatives** are used to induce relaxation and sleep.

**TABLE
16-2**

List prices for pain medications commonly used in hospital settings, 2017

Pain drug group	Number of options with list prices less than \$1 per dose	Share of commonly used options where list price is available	WAC list price per dose	
			Minimum	Maximum
Opioids	10	31%	\$0.05	\$1,361.16
Opioid agonists/antagonists	0	0	2.27	62.33
NSAIDs and other non-opioid pain relievers	27	47	0.02	64.80
Neurologic agents	2	67	0.43	6.00
Sedative agents	8	80	0.05	23.37
Musculoskeletal therapy agents	1	13	0.37	405.00
Ophthalmic agents	2	50	0.65	581.67
General anesthetics	0	0	2.59	18.42*
Local anesthetics	5	26	0.05	738.47

Note: WAC (wholesale acquisition cost), NSAID (nonsteroidal anti-inflammatory drug). Options include unique combinations of drugs, routes of administration, and dosage forms (e.g., acetaminophen oral capsule, fentanyl citrate injection solution).

*List price marked with an asterisk uses average wholesale price in lieu of unavailable WAC.

Source: MedPAC summary of Acumen LLC analysis of Medi-Span data (copyright 2017), Clinical Drug Information LLC.

- **Musculoskeletal therapy agents** are muscle relaxers and are used to treat muscle symptoms, such as spasm, pain, and stiffness.
- **Ophthalmic agents** are used to prevent or treat inflammation and provide analgesia after cataract and other eye surgery.
- **General and local anesthetics** are included because clinicians have the option to use these in the hospital setting to reduce or eliminate the use of other pain medications (e.g., using a local anesthetic during recovery following a surgical procedure on a limb).

Because the drugs included in our analysis can be prescribed using different dosages depending on unique patient needs, prices for each drug were standardized for a typical midrange dose for a patient of a specified weight.¹³ This standardization allows comparisons across drug options. Because we found WAC and AWP price patterns to be similar, we present WAC alone for brevity.

Opioids and their alternatives are available at overlapping price ranges

Analysis of Medi-Span data (copyright 2017), provided by Clinical Drug Information LLC, shows that the ranges of list prices for opioids and their alternatives overlap (Table 16-2). The menus of opioids and non-opioids

that are commonly used in hospital settings both include options that cost less than \$1 per dose. Specifically, there are 10 commonly used opioid options combining drug, route of administration, and dosage form (e.g., fentanyl citrate injection solution) that cost less than \$1 per dose. The lowest list price is \$0.05 per dose, for morphine sulfate intravenous solution. There are 27 commonly used NSAIDs and other non-opioid pain reliever options combining drug, route of administration, and dosage form (e.g., acetaminophen oral capsule) that cost less than \$1 per dose. The lowest list price is \$0.02 per dose for aspirin oral tablet. The commonly used drug groups neurologic agents, sedative agents, musculoskeletal therapy agents, ophthalmic agents, and local anesthetics all include an option of a drug, route of administration, and dosage form combination that costs less than \$1 per dose.

All of the pain drug groups commonly used in hospital settings include combinations of drug, route of administration, and dosage form with high—and sometimes very high—list prices. The highest list price among commonly used opioid combinations of drug, route of administration, and dosage form is \$1,361.16 a dose for fentanyl citrate nasal solution (Table 16-3, p. 462). The highest list price among commonly used NSAIDs and other non-opioid pain reliever options combining

**TABLE
16-3****Publicly available wholesale acquisition cost list prices for
opioids and opioid agonists/antagonists commonly used in the
inpatient and outpatient hospital settings, 2017**

Drug, route of administration, and dosage form	Median list price per dose	Drug, route of administration, and dosage form	Median list price per dose
Opioid pain relievers			
Alfentanil injection injectable	\$10.73	IV solution	0.05
Codeine sulfate		Oral solution	0.86
Oral solution	13.40	Oral tablet	0.55
Oral tablet	1.82	Rectal suppository	0.08
Fentanyl citrate		Morphine sulfate pentahydrate epidural suspension	6.87
Sublingual lozenge on a handle	15.76	Oxycodone HCl	
Sublingual tablet	133.31	Oral capsule	5.88
Injection solution	0.52	Oral concentrate	5.63
Injection solution cartridge	1.30	Oral solution	18.97
IV solution	N/A	Oral tablet	0.70
IV solution prefilled syringe	2.96*	Oxymorphone HCl injection solution	N/A
Nasal solution	1,361.16	Remifentanyl HCl IV solution reconstituted	4.38
Hydromorphone HCl		Sufentanil citrate IV solution	101.75
Injection solution	5.40	Tapentadol HCl oral tablet	14.36
Injection solution reconstituted	N/A	Tramadol HCl	
Levorphanol tartrate oral tablet	42.71	External cream	7.83
Meperidine HCl injection solution	14.08	Oral suspension reconstituted	N/A
Methadone HCl		Oral tablet	0.13
Injection solution	18.72	Opioid agonists/antagonists	
Oral concentrate	0.09	Buprenorphine HCl	
Oral solution	1.37	Sublingual film	6.61
Oral tablet	0.35	Injection solution	13.87
Oral tablet soluble	0.19	Subcutaneous implant	N/A
Morphine sulfate		Butorphanol tartrate	
Injection solution	1.78	Injection solution	4.58
Injection solution	1.78	Nasal solution	4.51
Intramuscular device	N/A	Nalbuphine HCl injection solution	2.27
		Pentazocine lactate injection solution	62.33

Note: IV (intravenous), HCl (hydrochloride), N/A (not available). All national drug codes (NDCs) for each drug were matched to wholesale acquisition cost (WAC) list prices that were standardized in terms of a single unit (e.g., 1 mg/ml, 1 mcg, 1 percent). If the normal dosage of the drug included a range (e.g., 200–300 mg), these unit prices were then standardized in terms of the midpoint of a drug's normal dosage. If the normal dosage included a reference to kilograms (e.g., 1 ug/kg/min), a standard patient weight of 71.4 kg was used to determine the total normal dosage. NDCs with percentage units of measure (UOMs) were converted by checking the package-size UOM in Medi-Span. If a package had grams or milliliters as the UOM, the drug ingredient strength was multiplied by 10 and the NDC's UOM was changed to match the package-size UOM. If there were multiple UOMs associated with a combination, the price is reported in terms of a single unit because of concerns about unit conversion to the normal dose.

*List prices marked with an asterisk use average wholesale price in lieu of unavailable WAC.

Source: Acumen LLC analysis of Medi-Span data (copyright 2017), Clinical Drug Information LLC.

drug, route of administration, and dosage form is \$64.80 a dose for diclofenac potassium oral packet (Table 16-4, p. 464). Higher list prices appear to be determined more (but not exclusively) by the route of administration and dosage form than by the drug ingredient. For example, acetaminophen is available in 12 different route of

administration–dosage form combinations with at least one list price less than \$2 per dose. The 2017 list price for the one acetaminophen intravenous solution option is not publicly available. However, the price for a midrange dose (i.e., using the same methodology applied in Table 16-2, p. 461; Table 16-3, p. 462; and Table 16-4, pp. 464–465) in

2014 was reportedly significantly more expensive at about \$26.00 (Sanghera 2018). The five highest priced options combining drug, route of administration, and dosage form (all with list prices greater than \$300) include an intravenous solution reconstituted, an injection suspension, a nasal solution, an ophthalmic solution, and a local anesthetic injection kit.

Hospital systems have responded in various ways to concerns about opioids and the differences in drug prices for pain treatment. For example, Geisinger Health System implemented the ProvenRecovery pilot in June 2017, which focuses on supporting nutrition, managing pain without the use of opioids, and promoting the postsurgery mobility of patients (Geisinger 2018, Johnson 2018). The pharmaceutical approach is opioid avoidant or, in some cases, opioid free, by using a multimodal pain management combination of non-opioid alternatives, such as acetaminophen, ibuprofen, gabapentin, ketamine, and lidocaine (Reed 2018). The program reportedly has driven an 18 percent decrease in opioid usage. While the use of multiple non-opioid alternatives (e.g., intravenous acetaminophen) may increase pharmaceutical spending, under Medicare's prospective payment systems these costs may be offset by reducing length of stay. Geisinger announced that the pilot resulted in 50 percent reductions in length of stay for neurosurgery and colorectal surgery patients. Earlier discharges accounted for an average savings of \$4,556 per case for colorectal surgery patients.

As another example of hospitals responding to differences in pain treatment drug prices, Chandler Regional Medical Center in Arizona focused specifically on the use of intravenous versus oral acetaminophen (Prince and Dungy 2015). In 2010, the FDA approved the first intravenous route of administration for acetaminophen (Waknine 2010). In 2014, Mallinckrodt Pharmaceuticals purchased the original manufacturer, Cadence Pharmaceuticals Inc., and increased the list price by 140 percent from \$14.60 to \$35.05 for each 1-gram vial (Sanghera 2018). Chandler conducted an internal retrospective study comparing postoperative use of intravenous versus oral acetaminophen for hip replacement and knee replacement patients. Lengths of stay for both groups were similar, and, as a result, Chandler adopted guidelines that called for greater use of oral acetaminophen, which led to saving about 45 percent on the drug overall.

There is no clear indication that Medicare's IPPS or OPPS provides systematic payment incentives that promote the use of opioid analgesics over non-opioid analgesics.

Both opioids and non-opioids are available at a range of list prices; there are options for either type of drug that cost less than \$1 per dose. There are some non-opioid options combining drug, route of administration, and dosage form that are much more expensive, but that is also true of opioid drugs. Hospitals that take on additional costs by selecting more expensive non-opioid drugs (e.g., intravenous acetaminophen) for clinical reasons can mitigate those costs by also adopting best practices and shifting patients to cheaper options combining route of administration and dosage form (e.g., oral and rectal acetaminophen) on a recommended schedule. Additionally, when hospitals implement prescribing protocols that rely on greater use of an expensive drug option, they can negotiate with their group purchasing organization for a better volume discount on the drug. Note that the prices included in our study are publicly available list prices; hospitals' true acquisition costs are lower, and the difference between list and acquisition prices presumably varies by drug. Finally, hospitals can partially or more than fully offset the cost of more expensive drug options if those options lower other costs by reducing length of stay or the need for other drugs (e.g., antiemetics) or nursing services.

Medicare monitoring of opioid use through claims and other data

CMS monitors opioid use in the Part D program through claims and other data. The agency does not operate similar tracking programs in Part A and Part B. CMS has required Part D plan sponsors to operate drug utilization management, quality assurance, and medication therapy management programs since Part D's inception in 2006. In response to concerns about the opioid epidemic, CMS implemented an opioid overutilization policy effective January 1, 2013, that called on Part D plan sponsors to take several steps to monitor their enrollees' opioid use to reduce overuse while maintaining enrollees' access to needed pain medications. The overutilization policy requires Part D plan sponsors to maintain appropriate plan-level claim controls at point of sale (POS) for opioids, including safety edits (electronic checks at the pharmacy that prompt the pharmacist to check with the prescriber before dispensing as necessary) and quantity limits; retrospective drug utilization review to identify beneficiaries at high risk of an adverse event because of opioids; case management with identified high-risk

**TABLE
16-4****Publicly available wholesale acquisition cost list prices for non-opioids commonly used in the inpatient and outpatient hospital settings, 2017**

Drug, route of administration, and dosage form	Median list price per dose	Drug, route of administration, and dosage form	Median list price per dose
NSAIDs and other non-opioid pain relievers			
Acetaminophen		Oral capsule	0.36
IV solution	N/A	Oral kit	N/A
Oral capsule	\$0.13	Oral suspension	1.68
Oral elixir	0.13	Oral tablet	\$0.14
Oral gel	0.84	Oral tablet, chewable	1.12
Oral liquid	1.04	Indomethacin	
Oral packet	0.10	Oral capsule	0.18
Oral solution	1.70	Oral suspension	N/A
Oral suspension	1.04	Rectal suppository	N/A
Oral syrup	1.32	Ketoprofen	
Oral tablet	0.05	Cream	15.51
Oral tablet, chewable	0.38	External cream	0.07
Oral tablet, disintegrating	0.39	Oral capsule	0.36
Rectal suppository	1.05	Meclofenamate sodium oral capsule	4.64
Aspirin		Mefenamic acid oral capsule	13.93
Oral tablet	0.02	Meloxicam	
Oral tablet, chewable	0.23	Oral capsule	24.48
Oral tablet, disintegrating	N/A	Oral suspension	7.20
Rectal suppository	0.19	Oral tablet	0.05
Celecoxib oral capsule	1.48	Nabumetone oral tablet	0.67
Choline magnesium trisalicylate		Naproxen	
Oral liquid	2.89	External cream	17.45
Oral tablet	0.51	Oral suspension	28.20
Clonidine HCl		Oral tablet	0.14
Epidural solution	0.98	Naproxen sodium	
Oral tablet	0.08	Oral capsule	0.31
Diclofenac oral capsule	9.31	Oral tablet	0.17
Diclofenac potassium		Oxaprozin oral tablet	3.97
Oral capsule	22.08	Piroxicam oral capsule	1.87
Oral packet	64.80	Salsalate oral tablet	0.97
Oral tablet	1.31	Sulindac oral tablet	0.21
Diclofenac sodium IV solution	N/A	Tolmetin sodium	
Diflunisal oral tablet	1.21	Oral capsule	2.16
Etodolac		Oral tablet	2.08
Oral capsule	0.83	Ziconotide acetate intrathecal solution	5.73
Oral tablet	0.68	Anticonvulsant, psychotherapeutic, and neurological agents	
Fenoprofen calcium		Gabapentin	
Oral capsule	10.36	External cream	N/A
Oral tablet	2.26	Oral capsule	0.43
Ibuprofen		Oral solution	6.00
External cream	31.07	Oral suspension	N/A
IV solution	14.56	Oral tablet	0.87

**TABLE
16-4****Publicly available wholesale acquisition cost list prices for non-opioids commonly used in the inpatient and outpatient hospital settings, 2017 (cont.)**

Drug, route of administration, and dosage form	Median list price per dose	Drug, route of administration, and dosage form	Median list price per dose
Antihistamines, hypnotics, sedatives, sleep disorder agents			
Diphenhydramine HCl		Lidocaine HCl	
Injection solution	0.95	External cream	0.08
Oral capsule	0.05	External gel	0.05
Oral elixir	2.29	External kit	323.10
Oral liquid	0.30	External liquid	2.72
Oral strip	0.81	External lotion	0.22
Oral suspension reconstituted	23.37	External ointment	41.58
Oral syrup	0.10	External solution	6.31
Oral tablet	0.07	Mepivacaine HCl injection solution	2.98
Oral tablet, chewable	0.72	Prilocaine HCl injection solution	N/A
Oral tablet, disintegrating	0.30	Ropivacaine HCl	
General anesthetics		Epidural solution	N/A
Ketamine HCl		Injection solution	0.13
Injection solution	2.59	Tetracaine HCl	
IV solution prefilled syringe	18.42*	Injection solution	N/A
Local anesthetics, dermatologicals, and ophthalmic agents		Ophthalmic solution	0.71
Bupivacaine injection suspension	335.06	Musculoskeletal therapy agents	
Bupivacaine HCl		Baclofen	
Injection kit	738.47	Intrathecal solution	11.83
Injection solution	5.57	Intrathecal solution, prefilled syringe	12.72
Chloroprocaine HCl injection solution	29.30	Oral suspension	1.76
Lidocaine		Oral tablet	0.37
External aerosol	5.70*	Dantrolene sodium	
External cream	17.38	IV solution reconstituted	405.00
External gel	7.58	IV suspension reconstituted	N/A
External kit	10.31	Oral capsule	3.06
External lotion	N/A	Ophthalmic agent analgesics	
External ointment	59.26	Flurbiprofen sodium ophthalmic solution	581.67
External patch	1.57	Ketorolac tromethamine	
		Injection kit	N/A
		Injection solution	2.16
		Intramuscular solution	0.90
		Oral tablet	0.65

Note: NSAID (nonsteroidal anti-inflammatory drug), IV (intravenous), HCl (hydrochloride), N/A (not available). All national drug codes (NDCs) for each drug were matched to wholesale acquisition cost (WAC) list prices that were standardized in terms of a single unit (e.g., 1 mg/ml, 1 mcg, 1 percent). If the normal dosage of the drug included a range (e.g., 200–300 mg), these unit prices were then standardized in terms of the midpoint of a drug's normal dosage. If the normal dosage included a reference to kilograms (e.g., 1 ug/kg/min), a standard patient weight of 71.4 kg was used to determine the total normal dosage. NDCs with percentage units of measure (UOMs) were converted by checking the package-size UOM in Medi-Span. If a package had grams or milliliters as the UOM, the drug ingredient strength was multiplied by 10 and the NDC's UOM was changed to match the package-size UOM. If there were multiple UOMs associated with a combination, the price is reported in terms of a single unit because of concerns about unit conversion to the normal dose. Prices are reported in terms of a single unit for the ropivacaine HCl injection solution and ropivacaine HCl epidural solution combinations because of concerns about the normal dose of UOMs.

*List prices marked with an asterisk use average wholesale price in lieu of unavailable WAC.

Source: Acumen LLC analysis of Medi-Span data (copyright 2017), Clinical Drug Information LLC.

beneficiaries' prescribers followed by beneficiary-specific POS edits to prevent Part D coverage of opioid overuse, if necessary; and data sharing between Part D plan sponsors regarding identified beneficiary opioid overutilization (Centers for Medicare & Medicaid Services 2012). CMS is planning additional opioid safety steps that will begin in 2019.

Overutilization Monitoring System

In July 2013, CMS added the Medicare Part D Overutilization Monitoring System (OMS) to ensure that Part D plan sponsors implement the opioid overutilization policy effectively (Centers for Medicare & Medicaid Services 2013b). Through the OMS, CMS analyzes prescription drug event (PDE) data to identify beneficiaries at risk for opioid or other drug overuse. PDE data are a summary record that prescription drug plan sponsors must submit every time an enrollee fills a prescription under Medicare Part D. The PDE data are not the same as individual drug claim transactions, but are summary extracts using CMS-defined standard fields (Centers for Medicare & Medicaid Services 2013c).

The other drugs included in the OMS are high-dose acetaminophen and concurrent use of benzodiazepines with opioids (added in 2016) (Centers for Medicare & Medicaid Services 2018a).¹⁴ In a 2019 call letter, CMS announced that the agency would also add high-dose gabapentin or pregabalin used concurrently with opioids. (All prescription drug products that contain acetaminophen include in their labeling a black box warning highlighting the potential for severe liver injury and death.¹⁵

Benzodiazepines and gabapentin are contraindicated for patients taking opioids because they increase the risk of possible complications, including overdose.) CMS also announced that it would perform additional analyses and consider enhancements to the OMS in the future to track information on OMS potential opioid overutilizers who concurrently use other potentiator drugs, such as muscle relaxants (e.g., carisoprodol) or sedative hypnotics (e.g., zolpidem, zalepron, and eszopiclone).¹⁶

CMS does not monitor for the potential overuse of other opioid alternatives (Centers for Medicare & Medicaid Services 2018b). CMS notes that many non-opioid drug alternatives are offered over the counter and thus would not result in PDE data. Nondrug alternatives would also not be captured by prescription drug plan data. Nondrug alternatives would only be identifiable in Medicare Advantage prescription drug plan data to the extent that

the plans covered these options as benefits (e.g., physical therapy, mental health services) and would be missing for those not covered (e.g., therapeutic massage, acupuncture).

Any beneficiaries identified as potential overutilizers through these analyses are included in reports sent to Part D plan sponsors through the Patient Safety Analysis Website.^{17,18} Hospice and cancer patients are excluded from the opioid utilizer and OMS criteria counts. Patients in long-term care facilities or receiving palliative or end-of-life care are also excluded beginning in 2019 (Centers for Medicare & Medicaid Services 2018a). Reports are issued every quarter based on PDE data from the prior two quarters. Part D plan sponsors are required to review the reports and respond to CMS within 30 days, describing the status of each beneficiary's case. Data shared with individual plans are confidential/secure; aggregated data are released occasionally by CMS (e.g., in notices, annual conferences). CMS does not publish an annual report on potential overutilizers (e.g., addressed to the public or to the Congress).

The OMS has achieved some success. CMS reports that from 2011 to 2017 the share of Part D enrollees who were prescribed opioids decreased from 32 percent to 28 percent (Centers for Medicare & Medicaid Services 2018a). In addition, over this same period, the share of enrollees identified as opioid utilization outliers according to OMS criteria fell from 0.29 percent to 0.05 percent.

As required by the Comprehensive Addiction and Recovery Act (CARA) of 2016, CMS finalized through rulemaking the framework under which Part D plan sponsors may adopt drug management programs (DMPs) beginning January 1, 2019, for beneficiaries who are at risk of misusing or abusing frequently abused drugs. The rule codified many aspects of the retrospective Part D Opioid Drug Utilization Review (DUR) Policy and the OMS, with adjustments as needed to comply with CARA, by integrating them into the DMP provisions (Centers for Medicare & Medicaid Services 2018f).

Quality measures

CMS also uses quality measures to track trends in opioid overuse across the Medicare Part D program and drive performance improvement among plan sponsors. These measures include publicly available display measures and confidential patient safety reports that are sent to plan sponsors.

Display measures, which are not part of the star ratings used to assess quality performance in Medicare Advantage and Part D plans, are available at CMS.gov (Centers for Medicare & Medicaid Services 2019b). These measures may include ones that are transitioned out of inclusion in the star ratings, new measures that are being tested before inclusion in the star ratings, or measures displayed solely for informational purposes (Centers for Medicare & Medicaid Services 2018a). Organizations and sponsors have the opportunity to preview the data for their display measures before release on CMS's website. Poor scores on display measures may reveal underlying compliance and performance issues that are subject to enforcement actions by CMS.

Since 2016, Part D plan sponsors have received monthly patient safety reports based on the Pharmacy Quality Alliance (PQA) opioid measures.¹⁹ CMS communicates with plans about their performance on these quality measures, including sharing information about individual beneficiaries identified. Plan sponsors with the lowest rating on each measure are expected to report actions they will take to improve performance (Centers for Medicare & Medicaid Services 2018a). Sponsors can use the reports to supplement their drug utilization review programs and address potential overuse of opioids across a population broader than that addressed by the OMS. CMS expects sponsors to routinely monitor these data to compare their performance with overall averages and assess their progress in reducing the number of beneficiaries using high doses of opioids, with or without multiple providers and pharmacies.

CMS's Part D opioid quality measures include three PQA measures that examine multiprovider and high-dosage opioid use among individuals 18 years and older without cancer and not in hospice care, plus one PQA measure of concurrent use of opioids and benzodiazepines (Centers for Medicare & Medicaid Services 2018a). Specifically, the following measures are used:

- **Measure 1**—Use of Opioids at High Dosage in Persons without Cancer. The proportion (XX out of 1,000) of individuals from the denominator receiving prescriptions for opioids with a daily dosage greater than 120 mg morphine milligram equivalents (MMEs) for 90 consecutive days or longer.
- **Measure 2**—Use of Opioids from Multiple Providers in Persons without Cancer. The proportion (XX out of

1,000) of individuals from the denominator receiving prescriptions for opioids from 4 or more prescribers and 4 or more pharmacies.

- **Measure 3**—Use of Opioids at High Dosage and from Multiple Providers in Persons without Cancer. The proportion (XX out of 1,000) of individuals from the denominator receiving prescriptions for opioids with a daily dosage greater than 120 mg MMEs for 90 consecutive days or longer and who received opioid prescriptions from 4 or more prescribers and 4 or more pharmacies.
- **PQA's Concurrent Use of Opioids and Benzodiazepines**—This measure assesses the share of individuals 18 years and older with concurrent use of opioids and benzodiazepines.²⁰

All three overuse measures are included in the patient safety reports sent to plan sponsors. CMS announced that the concurrent use of opioids and benzodiazepines would be added to patient safety reports for the 2018 measurement year. In addition, the third overuse measure will be added to the 2019 Part D display measures (using 2017 data), and the concurrent use measure will be added for 2021 (2019 data) and 2022 (2020 data). The agency will consider the concurrent use measure for the 2023 star ratings (2021 data) pending rulemaking.

Medicare Part D opioid prescribing mapping tool

In addition to tracking beneficiaries' use of opioids, CMS uses PDE data to monitor clinicians' opioid prescribing patterns. The results are publicly available on the CMS website through the Medicare Part D opioid prescribing mapping tool that shows geographic comparisons at the state, county, and ZIP code levels of Medicare Part D opioid prescriptions. The mapping tool presents Medicare Part D opioid prescribing rates for 2016 as well as the change in opioid prescribing rates from 2013 to 2016 (Centers for Medicare & Medicaid Services 2019a). The tool does not identify or include information on individual beneficiaries but, rather, identifies individual clinicians. The analysis is from the prescriber perspective rather than the beneficiary perspective and is not designed to indicate the quality or appropriateness of the opioid prescriptions; unlike the OMS analysis, opioid prescriptions to hospice and cancer patients are included.

Food and Drug Administration opioid policy and drug surveillance programs

The Food and Drug Administration (FDA) published its Strategic Policy Roadmap in January 2018 that summarizes the agency's efforts to address opioid misuse along with other policy objectives (Food and Drug Administration 2018). The Roadmap indicates that the FDA's policy priorities are to help ensure that patients are prescribed opioids only when their use is clinically indicated and that prescriptions are for appropriately limited dosages and durations. The FDA will also focus on efforts to facilitate treatment options and the development of therapies to address addiction as a disease, including getting more people in need access to medication-assisted treatment (MAT) for addiction, involving the use of medications in combination with counseling and behavioral therapies.

The FDA is also seeking increased development and use of opioid drugs with improved formulations

less likely to lead to overuse; alternative drugs and devices that treat pain with less risk of addiction; and better treatments for addiction, including both opioid agonists—drugs that mimic the effects of naturally occurring endorphins in the body and produce an opiate effect by interacting with specific receptor sites (e.g., heroin, oxycodone, methadone, hydrocodone, morphine, opium)—and antagonists—drugs that block the action of the agonist and have an inverse effect (e.g., naloxone, naltrexone). The FDA also plans to foster wider adoption of MAT by addressing the stigma associated with use of these drugs.

Additionally, the FDA will strengthen its enforcement activities that target those who unlawfully market or distribute controlled substances and other unapproved drugs. The agency will also increase efforts aimed at the interdiction of opioids being illegally shipped into the United States.

(continued next page)

Policy options for tracking opioid use in hospital settings

Given concerns about the opioid crisis, should CMS track opioid use in hospital inpatient and outpatient settings? If so, what lessons learned from CMS's tracking of opioid use in Part D could be applied to similar efforts in Part A and Part B? Reasons for undertaking a tracking program include the severity of the opioid epidemic and the gap in knowledge about the degree to which Medicare beneficiaries are exposed to opioids while in the hospital. Balanced against these reasons are the current lack of claims and other data infrastructure to support a tracking program and questions about how to interpret the appropriateness of opioid prescriptions identified by a tracking program.

Public concerns have largely focused on longer term use of opioids for chronic pain. Yet the Centers for Disease Control and Prevention's (CDC) recommendation to limit opioids for acute pain to three days or less clearly

has implications for opioid use in the inpatient setting (Dowell et al. 2016).²¹ The average length of stay for Medicare fee-for-service beneficiaries in 2016 was 4.5 days (Medicare Payment Advisory Commission 2018). The recommendation may play a role in the outpatient setting too since patients may begin an opioid course during their outpatient visit and then complete the course at home. Both settings introduce the risk of beneficiary confusion about transitioning their medication regime begun in the hospital setting postdischarge, as well as a lack of coordination between hospital and community-based prescribers. Clinical evidence cited by the CDC review found that opioid use for acute pain is associated with long-term opioid use and that a greater amount of early opioid exposure is associated with greater risk of long-term use.

Other organizations have also raised concerns and issued guidance about opioid prescribing in hospital settings. For example, in 2015 the Society of Hospital Medicine (SHM) published guidelines on hospital-based opioid prescribing that reviewed best practices for safe opioid

Food and Drug Administration opioid policy and drug surveillance programs (cont.)

Postmarketing surveillance programs

The FDA maintains a system of postmarketing surveillance and risk assessment programs to identify adverse events that were not identified during drug testing before approval. Postmarketing surveillance monitors for adverse events such as adverse reactions and poisonings. The FDA uses this information to update drug labeling, to send informative letters to clinicians, and, on rare occasions, to reevaluate an approval or marketing decision.

The FDA Adverse Event Reporting System (FAERS) is a computer database designed to support the FDA's postmarketing surveillance programs for all approved drug and therapeutic biologic products. FAERS contains adverse event reports, medication error reports, and product quality complaints resulting in adverse events that were submitted to the FDA. Health care professionals, consumers, and manufacturers can voluntarily submit reports to FAERS. If a drug manufacturer receives a report from a health care

professional or consumer, it is required to send the report to the FDA.

The FAERS data, while useful, have several limitations. They are not complete; the FDA does not receive reports for every adverse event or medication error that occurs with a product. It may also overstate or misstate potential problems. The FDA does not require that a causal relationship between a product and event be proven, and reports do not always contain enough detail to properly evaluate an event. Thus, FAERS data serve as a source of information for further investigation where warranted. Reports in FAERS are evaluated by the FDA's clinical reviewers. If there is sufficient cause for concern about a potential safety issue, further evaluation can include conducting studies on large databases such as the FDA's national electronic system Sentinel, which includes large amounts of electronic health care data from electronic health records, insurance claims data, and registries from a diverse group of data partners. ■

use, including assessing risks; selecting the optimal dose, route, and frequency; and monitoring patients on opioids (Frederickson et al. 2015). In 2018, SHM updated its guidance to state that “SHM recommends that clinicians limit the use of opioids to patients with 1) severe pain or 2) moderate pain that has not responded to non-opioid therapy or where non-opioid therapy is contraindicated or anticipated to be ineffective” (Herzig et al. 2018). In addition, in 2017 the Colorado Chapter of the American College of Emergency Physicians published guidelines on opioid prescribing in emergency departments, stating that opioids “should be avoided whenever possible and, in most cases, initiated only after other modalities of pain control have been trialed” (Colorado Chapter of the American College of Emergency Physicians 2017).

Together, these recommendations suggest that by monitoring opioid use only in the Part D program, Medicare is missing a substantial opportunity to prevent opioid-related harm to beneficiaries. Importantly, other federal agencies besides CMS have jurisdiction over some aspects of opioid use, such as the FDA, CDC,

and the Substance Abuse and Mental Health Services Administration, but these agencies also lack programs that track opioid utilization in the hospital setting (see text box on the FDA's opioid policy and drug surveillance programs). States have taken a role through the use of prescription drug monitoring programs (PDMPs) with electronic databases that track a state's controlled substance prescriptions. Currently, 49 states, the District of Columbia, and Guam each operate a PDMP (Prescription Drug Monitoring Program Training and Technical Assistance Center 2018a). PDMPs collect, monitor, and analyze electronically transmitted prescribing and dispensing data submitted by pharmacies and certain other dispensers, including hospital outpatient departments. Hospital inpatient pharmacies are not required to report (Prescription Drug Monitoring Program Training and Technical Assistance Center 2018b). Pharmacies submit these data to state PDMPs at varying intervals—ranging from monthly to daily or even in real time (Centers for Disease Control and Prevention 2017). The timeliness of data submission affects the utility of the databases' tracking. Some states have implemented policies

that require clinicians to check a state PDMP before prescribing certain controlled substances and to limit prescribing to certain circumstances (Centers for Disease Control and Prevention 2017).

There are compelling patient safety and public health reasons for Medicare to track the use of opioids and non-opioid alternatives in hospital settings. If policymakers were to consider options for tracking pain treatment in hospitals, there are at least three options for implementing such a program:

- **Require PDE-type reporting**—If Medicare were to undertake an opioid monitoring program in Part A and Part B, structural differences would require CMS to adapt its current monitoring program under Part D to monitor operations under Part A and Part B. Medicare relies on Part D plan sponsors to report PDE data representing the claims between pharmacies and the plans. CMS uses a contractor to analyze the PDE data to identify potentially at-risk beneficiaries and prescribers with outlier prescribing patterns. It also relies on the plan sponsors to use the analytic results along with plan data to implement drug management programs, such as POS edits, case management, outreach and education to enrollees, and clinical contact with prescribers. While there are no drug plan sponsors in Part A and Part B like there are in Part D, prescribing clinicians or hospitals could be required to report specific summary information (similar to the PDE data) about the pain management drugs to MACs or other contractors for analysis.
- **Include drugs in Part A and Part B claims**—These claims currently do not include complete information on the pain management drugs paid for under the IPPS and OPPIs as packaged supplies. CMS could take steps to incorporate these data into the claims and then require hospitals to include information about all pain management drugs used. This option would require decisions about how best to proceed (e.g., pain management drugs could continue to be packaged but identified on the claim through a modifier) and would likely require a multiyear effort to implement. Some entity (e.g., MACs or another contractor) would then need to extract the opioid information from the claims for analysis.

Both the PDE-type and claims reporting options would require new efforts by hospitals. While to date Medicare has not called on hospitals to provide

information about all pain drugs prescribed for beneficiaries, other payers do. Given that hospitals provide charge information for individual drugs when billing these payers or uninsured patients, internal tracking mechanisms already exist. Considering the urgency of the opioid epidemic and the preference for program oversight, policymakers may wish to direct hospitals to draw on their existing internal tracking mechanisms to report information about drug use for pain to Medicare as they do for other payers.

- **Link Part D opioid use to hospitals responsible for initiation**—If policymakers were concerned about introducing undue burden on hospitals by requiring either PDE-type or claims reporting of pain management drug use, they could opt for an indirect method of associating a beneficiary's opioid use with the hospital that first prescribed it. This method offers the advantage of drawing on existing PDE data but has the disadvantages of potentially delaying identification (e.g., beneficiaries may not fill a Part D opioid prescription for months or years following initial use in a hospital setting) and identifying linkages between eventual Part D utilization and initial hospital introduction of opioids that would be open to interpretation and challenge (e.g., a hospital identified as responsible could turn out to represent the second use of opioids following an initiation years earlier or could have used opioids for a limited number of days and discharged the patient with appropriate follow-up care instructions that were then superseded by a community-based physician).

Another key difference from Part D is that once any Part A or Part B opioid use data are analyzed, policymakers would need to determine to whom and how the results should be communicated back to hospitals and their prescribing physicians. In Part D, plan sponsors often have a contractual relationship with prescribers and are expected to educate and communicate with them about plan policies. There are no drug plan sponsors to take on this role in Part A or Part B. Thus, policymakers would need to determine whether CMS, MACs, or other contractors should communicate analytic results with prescribers, hospitals, or both and what, if any, additional steps beyond communication and education should be taken. ■

Endnotes

- 1 Medicare makes extra payments for “outlier cases,” which are extraordinarily costly, producing losses that may be too large for hospitals to offset.
- 2 Any physician services provided during the stay by a physician who is not an employee of the hospital are billed separately from hospital inpatient charges. Medicare Part B pays for these services under the physician fee schedule.
- 3 “Like other prospective payment systems, the OPPS relies on the concept of averaging to establish a payment rate for services. The payment may be more or less than the estimated cost of providing a specific service or a bundle of specific services for a particular patient.” (For additional detail, see Centers for Medicare & Medicaid Services 2016, Centers for Medicare & Medicaid Services 2015, Centers for Medicare & Medicaid Services 2014, Centers for Medicare & Medicaid Services 2013a, Centers for Medicare & Medicaid Services 2007, Centers for Medicare & Medicaid Services 2000.)
- 4 For example, Medicare would not treat as packaged supplies any drugs that are given to a patient for continued use at home after leaving the hospital. Another example would be a situation in which a patient who is receiving an outpatient chemotherapy treatment develops a headache. Any medication given to the patient for the headache would not meet the conditions necessary to be treated as a packaged supply. Similarly, if a patient who is undergoing surgery needs his or her daily insulin or hypertension medication, the medication would not be treated as a packaged supply.
- 5 MACs are private companies that have been awarded CMS contracts to process Medicare Part A and Part B medical claims or durable medical equipment claims for Medicare fee-for-service beneficiaries.
- 6 In the 2017 final rule, CMS adopted a policy to allow for quarterly expiration of pass-through payment status for devices, beginning with newly approved pass-through payment devices in 2017, to afford a pass-through payment period that is as close to a full three years as possible for all pass-through payment devices (Centers for Medicare & Medicaid Services 2016).
- 7 The Department of Health and Human Services Office of Inspector General permits hospitals to waive costs owed by Medicare beneficiaries, including cost-sharing amounts, without violating the federal anti-kickback statute, in limited circumstances. Under the criteria for waiving costs: (1) the costs waived must be only for noncovered self-administered drugs used in outpatient settings, (2) hospitals must uniformly apply their waiver policy, (3) hospitals may not advertise their waiver policy, and (4) hospitals must not claim the waived amounts as bad debt or shift the burden of these costs to other payers or individuals (Office of Inspector General 2015).
- 8 Under the 340B program, certain providers known as 340B hospitals (“covered entities”) can obtain discounted prices on covered outpatient drugs (prescription drugs and biologics other than vaccines) from drug manufacturers. Beginning January 2018, the OPPS generally pays 340B hospitals ASP minus 22.5 percent for separately payable Part B drugs that do not have pass-through status (while drugs with pass-through status are paid ASP + 6 percent). However, a district court ruling issued December 28, 2018, questions the Secretary’s authority to pay ASP minus 22.5 percent, and thus CMS may change this payment rate in the future (American Hospital Association et al. v. Alex Azar II 2018).
- 9 Exparel, a non-opioid drug used to manage postsurgical pain, had pass-through status from 2012 through 2014 and was paid separately in both the OPPS and ambulatory surgical center (ASC) payment systems. Beginning in 2015, Exparel was packaged as a supply in both payment systems. In their analysis of Exparel use from 2013 to 2017, CMS found that the drug’s use differed in the HOPD and ASC settings. First, even when the drug was paid separately, use of Exparel in ASCs was much lower than in HOPDs. In addition, in the HOPD setting, the use of Exparel continued to increase even after the drug began to be packaged. By contrast, in the ASC setting, the use of Exparel increased rapidly when it was paid separately as a pass-through drug from 2013 through 2014 but declined substantially when the drug was packaged from 2015 through 2017. In 2019, CMS unpackaged and began paying separately for Exparel when used in ambulatory surgical centers. The drug remains a packaged supply in the hospital outpatient setting.
- 10 Some devices, such as neurostimulators and infusion pumps for delivering drugs, are used primarily to treat chronic pain and are paid for separately by Medicare; they have been included as pass-through payments.
- 11 Buprenorphine extended-release injections, which are used to treat opioid addiction, were granted pass-through status effective July 1, 2018 (Centers for Medicare & Medicaid Services 2018c).
- 12 Examples of other low-cost drugs used in the hospital outpatient department that are bundled into the payment for primary services under the OPPS include anesthesia drugs; drugs that function as supplies when used in a diagnostic test or procedure (including diagnostic radiopharmaceuticals,

contrast agents, and stress agents); and drugs that function as supplies when used in a surgical procedure.

- 13 For each selected opioid and non-opioid drug commonly used in the inpatient and outpatient hospital settings, we matched all national drug codes (NDCs) to WAC unit list prices, where available, that were standardized in terms of a single unit (e.g., 1 mg/ml, 1 mcg, 1 percent). Drugs with only one NDC or where list prices are otherwise not available are indicated as “N/A.” Drugs with AWP but not WAC price available are indicated by an asterisk. If the normal dosage of the drug included a range (e.g., 200–300 mg), these unit prices for WAC and AWP were then standardized in terms of the midpoint of a drug’s normal dosage. If the normal dosage included a reference to kilograms (e.g., 1 ug/kg/min), a standard patient weight of 71.4 kg was used to determine the total normal dosage. NDCs with percentage units of measure (UOMs) were converted by checking the package-size UOM in Medi-Span. If a package had grams or milliliters as the UOM, the drug ingredient strength was multiplied by 10 and the NDC’s UOM was changed to match the package-size UOM. If there were multiple UOMs associated with a combination, WAC is reported in terms of a single unit because of concerns about unit conversion to the normal dose. WAC is reported in terms of a single unit for the ropivacaine HCl injection solution and ropivacaine HCl epidural solution combinations because of concerns about the normal dose of UOMs.
- 14 In January 2018, all formulations of buprenorphine, including those for pain treatment, were removed from PDE analyses of potential opioid outliers. CMS stressed in communications with Part D plan sponsors that their overutilization policies should not interfere with enrollees’ access to medication-assisted treatment, including buprenorphine products (Centers for Medicare & Medicaid Services 2018a, Centers for Medicare & Medicaid Services 2018g).
- 15 “These products contain acetaminophen. Acetaminophen has been associated with cases of acute liver failure, at times resulting in liver transplant and death. Most of the cases of liver injury are associated with the use of acetaminophen at doses that exceed 4,000 milligrams per day, and often involve more than one acetaminophen-containing product” (Food and Drug Administration 2011).
- 16 A *drug potentiator* is defined as a chemical, herb, or other drug that is used to increase the effects of a substance, consequently increasing both the substance’s and the potentiator’s abuse potential.
- 17 Note that the OMS identifies potential outlier drug utilization issues at the beneficiary level and is not related to the current patient safety outlier reporting process, which tracks contract-level outliers for patient safety measures. The OMS uses a separate process for reporting and collecting responses to beneficiaries identified with potential drug utilization issues.
- 18 The Patient Safety Analysis website is a nonpublic platform operated by a CMS contractor, accessible only to authorized participants. Each plan sponsor accesses a secure space on the site that is separate from all other plan sponsors’ spaces.
- 19 The Pharmacy Quality Alliance (PQA) is a multi-stakeholder membership organization that was established in 2006 as a public–private partnership with CMS shortly after the implementation of the Medicare Part D prescription drug benefit. PQA’s quality measures are developed using a transparent, consensus-based process.
- 20 *Concurrent use* is defined as an overlapping supply for an opioid and a benzodiazepine for 30 or more cumulative days.
- 21 Recommendation 6 of the *CDC Guideline for Prescribing Opioids for Chronic Pain* states that opioids prescribed for acute pain should be limited to three days or fewer and that a supply for more than seven days is rarely necessary (Dowell et al. 2016).

References

- American Hospital Association et al. v. Alex Azar II, Secretary of Health and Human Services, et al. 2018. Memorandum opinion. Civil action no.: 18–2084 (RC). U.S. District Court for the District of Columbia. https://ecf.dcd.uscourts.gov/cgi-bin/show_public_doc?2018cv2084-25.
- Centers for Disease Control and Prevention. 2017. What states need to know about PDMPs. <https://www.cdc.gov/drugoverdose/pdmp/states.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2019a. Medicare Part D opioid prescribing mapping tool. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/OpioidMap.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2019b. Part C and D performance data. <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/PerformanceData.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018a. Announcement of calendar year (CY) 2019 Medicare Advantage capitation rates and Medicare Advantage and Part D payment policies and final call letter. April 2. <https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Announcement2019.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018b. Commission communication with CMS Part D program staff, August 1.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018c. July 2018 update of the hospital outpatient prospective payment system (OPPS). Change request 10781. Pub 100–04 Medicare claims processing. Transmittal 4064. CMS manual system. June 1. <https://www.cms.gov/Regulations-and-Guidance/Guidance/Transmittals/2018Downloads/R4064CP.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018d. *Medicare benefit policy manual: Chapter 15*. Baltimore, MD: CMS. <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/bp102c15.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018e. Medicare program: Changes to hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs. Final rule. *Federal Register* 83, no. 225 (November 21): 58818–59179.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018f. Medicare program; contract year 2019 policy and technical changes to the Medicare Advantage, Medicare cost plan, Medicare fee-for-service, the Medicare prescription drug benefit programs, and the PACE program. Final rule. *Federal Register* 83, no. 73 (April 16): 16440–16757.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2018g. Memorandum re: Updates: 2018 Medicare Part D Overutilization Monitoring System. January 19. <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/RxUtilization.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017a. *How Medicare covers self-administered drugs given in hospital outpatient settings*. Baltimore, MD: CMS. <https://www.medicare.gov/pubs/pdf/11333-How-Medicare-Covers-Self-Administered-Drugs-in-Hospital-Outpatient.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017b. Medicare program: Hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs. Final rule. *Federal Register* 82, no. 239 (December 14): 59216–59497.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. Medicare program: hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs; organ procurement organization reporting and communication; transplant outcome measures and documentation requirements; electronic health record (EHR) incentive programs; payment to nonexcepted off-campus provider-based department of a hospital; hospital value-based purchasing (VBP) program; establishment of payment rates under the Medicare physician fee schedule for nonexcepted items and services furnished by an off-campus provider-based department of a hospital. Final rule. *Federal Register* 81, no. 219 (November 14): 79562–79892.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015. Medicare program; hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs; short inpatient hospital stays; transition for certain Medicare-dependent, small rural hospitals under the hospital inpatient prospective payment system. Final rule. *Federal Register* 80, no. 219 (November 13): 70298–70607.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014. Medicare and Medicaid programs: Hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs; physician-owned hospitals: data sources for expansion exception; physician certification of inpatient hospital services; Medicare Advantage organizations and Part D sponsors: CMS-identified overpayments associated with submitted payment data. Final rule. *Federal Register* 79, no. 217 (November 10): 66770–67034.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2013a. Medicare and Medicaid programs: hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs; hospital value-based purchasing program; organ procurement organizations; quality improvement organizations; Electronic Health Records (EHR) Incentive Program; provider reimbursement determinations and appeals. Final rule. *Federal Register* 78, no. 237 (December 10): 74825–75200.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2013b. Memorandum re: Medicare Part D Overutilization Monitoring System. July 5.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2013c. Questions and answers on obtaining prescription drug event (PDE) data. <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/downloads/PartDClaimsDataQA.pdf>.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2012. Announcement of calendar year (CY) 2013 Medicare Advantage capitation rates and Medicare Advantage and Part D payment policies and final call letter. April 2.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2007. Medicare program: changes to the hospital outpatient prospective payment system and CY 2008 payment rates, the ambulatory surgical center payment system and CY 2008 payment rates, the hospital inpatient prospective payment system and FY 2008 payment rates; and payments for graduate medical education for affiliated teaching hospitals in certain emergency situations Medicare and Medicaid programs: hospital conditions of participation; necessary provider designations of critical access hospitals. Final rule with comment. *Federal Register* 72, no. 227 (November 27): 66580–67225.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2002. Medicare program; changes to the hospital outpatient prospective payment system and calendar year 2003 payment rates; and changes to payment suspension for unfilled cost reports. Final rule. *Federal Register* 67, no. 212 (November 1): 66718–67017.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2000. Medicare program; prospective payment system for hospital outpatient services. Final rule. *Federal Register* 65, no. 68 (April 7): 18433–18820.

Colorado Chapter of the American College of Emergency Physicians. 2017. *Opioid prescribing & treatment guidelines*. Northglenn, CO: COACEP. https://www.coacep.org/docs/COACEP_Opioid_Guidelines-Final.pdf.

Dowell, D., T. M. Haegerich, and R. Chou. 2016. CDC guideline for prescribing opioids for chronic pain: United States, 2016. *Morbidity and Mortality Weekly Report* 65, no. RR–1: 1–49.

Food and Drug Administration. 2018. *Healthy innovation, safer families: FDA's 2018 Strategic Policy Roadmap*. Silver Spring, MD: FDA. <https://www.fda.gov/downloads/AboutFDA/ReportsManualsForms/Reports/UCM592001.pdf>.

Food and Drug Administration, Department of Health and Human Services. 2011. FDA drug safety communication: Prescription acetaminophen products to be limited to 325 mg per dosage unit; boxed warning will highlight potential for severe liver failure. January 13. <http://www.fda.gov/Drugs/DrugSafety/ucm239821.htm>.

Frederickson, T. W., D. B. Gordon, M. De Pinto, et al. 2015. *Reducing adverse drug events related to opioids implementation guide*. Philadelphia, PA: Society of Hospital Medicine's Center for Hospital Innovation & Improvement. https://www.calhospital.org/sites/main/files/file-attachments/radeo_implementation_guide.pdf.

Geisinger. 2018. Geisinger launches surgical redesign program to reduce opioid use and improve patient experience. News release. November 15. <https://www.geisinger.org/about-geisinger/news-and-media/news-releases/2018/11/15/14/50/geisinger-launches-surgical-redesign-program-to-reduce-opioid-use-and-improve-pat>.

Hartford, L. B., J. A. M. Van Koughnett, P. B. Murphy, et al. 2019. Standardization of Outpatient Procedure (STOP) Narcotics: A prospective non-inferiority study to reduce opioid use in outpatient general surgical procedures. *Journal of the American College of Surgeons* 228, no. 1 (January): 81–88.

Herzig, S. J., H. J. Mosher, S. L. Calcaterra, et al. 2018. Improving the safety of opioid use for acute noncancer pain in hospitalized adults: A consensus statement from the Society of Hospital Medicine. *Journal of Hospital Medicine* 13, no. 4 (April): 263–271.

Institute for Clinical and Economic Review. 2017. *A look at cognitive and mind-body therapies for chronic low back and neck pain*. Boston, MA: ICER. <https://icer-review.org/wp-content/uploads/2017/11/Chronic-Pain-RAAG-110117.pdf>.

Johnson, S. R. 2018. Geisinger tackles post-op pain management without opioids. *Modern Healthcare*, November 16.

Kerai, S., K. N. Saxena, B. Taneja, et al. 2014. Role of transcutaneous electrical nerve stimulation in post-operative analgesia. *Indian Journal of Anaesthesia* 58, no. 4 (July): 388–393.

Medicare Payment Advisory Commission. 2018. *A data book: Health care spending and the Medicare program*. Washington, DC: MedPAC.

Office of Inspector General, Department of Health and Human Services. 2015. OIG policy statement regarding hospitals that discount or waive amounts owed by Medicare beneficiaries for self-administered drugs dispensed in outpatient settings. October 29. <https://oig.hhs.gov/compliance/alerts/guidance/policy-10302015.pdf>.

Prescription Drug Monitoring Program Training and Technical Assistance Center, Brandeis University. 2018a. Prescription drug monitoring frequently asked questions (FAQ). <http://www.pdmpassist.org/content/prescription-drug-monitoring-frequently-asked-questions-faq>.

Prescription Drug Monitoring Program Training and Technical Assistance Center, Brandeis University. 2018b. Technical assistance guide: Prescription drug monitoring programs administrators' orientation package. Waltham, MA: Prescription Drug Monitoring Program Training and Technical Assistance Center. http://www.pdmpassist.org/pdf/PDMP_admin/PDMP_Administrators_Orientation_Package_final_20180314.pdf.

President's Commission on Combating Drug Addiction and the Opioid Crisis. 2017. Report and recommendations. https://www.whitehouse.gov/sites/whitehouse.gov/files/images/Final_Report_Draft_11-1-2017.pdf.

Prince, J. S., and D. Dungy. 2015. When IV acetaminophen costs skyrocketed, one health system did some new math. *Drug Topics*, February 10. <http://www.drugtopics.com/health-system-news/when-iv-acetaminophen-costs-skyrocketed-one-health-system-did-some-new-math>.

Reed, T. 2018. Geisinger launches program meant to 'redesign' surgical experience. *FierceHealthcare*, November 16. <https://www.fiercehealthcare.com/hospitals-health-systems/geisinger-launches-program-mean-to-redesign-surgical-experience>.

Sanghera, R. 2018. IV acetaminophen: Is it worth the cost? *Healthcare Business Insights*, May 3. <https://www.healthcarebusinessinsights.com/blog/cost-quality/iv-acetaminophen-worth-cost/>.

Waknine, Y. 2010. FDA approves first intravenous formulation of acetaminophen. *Medscape*, November 4. <https://www.medscape.com/viewarticle/731994>.

A P P E N D I X

A

**Commissioners' voting
on recommendations**

Commissioners' voting on recommendations

In the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000, the Congress required MedPAC to call for individual Commissioner votes on each recommendation and to document the voting record in its report. The information below satisfies that mandate.

Chapter 1: Context for Medicare payment policy

No recommendations

Chapter 2: Assessing payment adequacy and updating payments in fee-for-service Medicare

No recommendations

Chapter 3: Hospital inpatient and outpatient services

The Congress should:

- Replace Medicare's current hospital quality programs with a new hospital value incentive program (HVIP) that:
 - includes a small set of population-based outcome, patient experience, and value measures;
 - scores all hospitals based on the same absolute and prospectively set performance targets;
 - accounts for differences in patients' social risk factors by distributing payment adjustments through peer grouping, and
- For 2020, update the 2019 Medicare base payment rates for acute care hospitals by 2 percent. The difference between the update recommendation and the amount specified in current law should be used to increase payments in a new HVIP.

Yes: Bricker, Buto, Christianson, Crosson, DeBusk, DeSalvo, M. Ginsburg, P. Ginsburg, Grabowski, Jaffery, Perlin, Pyenson, Ryu, Safran, Thomas, Thompson, Wang

Chapter 4: Physician and other health professional services

For calendar year 2020, the Congress should increase the calendar year 2019 Medicare payment rates for physician and other health professional services by the amount specified in current law.

Yes: Bricker, Buto, Christianson, Crosson, DeBusk, DeSalvo, M. Ginsburg, P. Ginsburg, Grabowski, Jaffery, Perlin, Pyenson, Ryu, Safran, Thomas, Thompson, Wang

Chapter 5: Ambulatory surgical center services

5-1 The Congress should eliminate the calendar year 2020 update to the Medicare conversion factor for ambulatory surgical centers.

Yes: Bricker, Buto, Christianson, Crosson, DeBusk, DeSalvo, M. Ginsburg, P. Ginsburg, Grabowski, Jaffery, Perlin, Pyenson, Ryu, Safran, Thompson, Wang

Absent: Thomas

5-2 The Secretary should require ambulatory surgical centers to report cost data.

Yes: Bricker, Buto, Christianson, Crosson, DeBusk, DeSalvo, M. Ginsburg, P. Ginsburg, Grabowski, Jaffery, Perlin, Pyenson, Ryu, Safran, Thompson, Wang

Absent: Thomas

Chapter 6: Outpatient dialysis services

For calendar year (CY) 2020, the Congress should update the CY 2019 Medicare end-stage renal disease prospective payment system base rate by the amount determined in current law.

Yes: Bricker, Buto, Christianson, Crosson, DeBusk, DeSalvo, M. Ginsburg, P. Ginsburg, Grabowski, Jaffery, Perlin, Pyenson, Ryu, Safran, Thomas, Thompson, Wang

Chapter 7: Cross-cutting issues in post-acute care

No recommendations

Chapter 8: Skilled nursing facility services

8-1 The Secretary should proceed to revise the skilled nursing facility prospective payment system in fiscal year 2020 and should annually recalibrate the relative weights of the case-mix groups to maintain alignment of payments and costs.

Yes: Bricker, Buto, Christianson, Crosson, DeBusk, DeSalvo, M. Ginsburg, P. Ginsburg, Grabowski, Jaffery, Perlin, Pyenson, Ryu, Safran, Thomas, Thompson, Wang

8-2 The Congress should eliminate the fiscal year 2020 update to the Medicare base payment rates for skilled nursing facilities.

Yes: Bricker, Buto, Christianson, Crosson, DeBusk, DeSalvo, M. Ginsburg, P. Ginsburg, Grabowski, Jaffery, Perlin, Pyenson, Ryu, Safran, Thomas, Thompson, Wang

Chapter 9: Home health care services

For 2020, the Congress should reduce the calendar year 2019 Medicare base payment rate for home health agencies by 5 percent.

Yes: Bricker, Buto, Christianson, Crosson, DeBusk, DeSalvo, M. Ginsburg, P. Ginsburg, Grabowski, Jaffery, Perlin, Pyenson, Ryu, Safran, Thomas, Thompson
Absent: Wang

Chapter 10: Inpatient rehabilitation facility services

For 2020, the Congress should reduce the fiscal year 2019 Medicare base payment rate for inpatient rehabilitation facilities by 5 percent.

Yes: Bricker, Buto, Christianson, Crosson, DeBusk, DeSalvo, M. Ginsburg, P. Ginsburg, Grabowski, Jaffery, Perlin, Pyenson, Ryu, Safran, Thomas, Thompson, Wang

Additionally, the Commission reiterates its March 2016 recommendations on the inpatient rehabilitation facility prospective payment system. See text box, p. 261.

Chapter 11: Long-term care hospital services

For 2020, the Secretary should increase the fiscal year 2019 Medicare base payment rates for long-term care hospitals by 2 percent.

Yes: Bricker, Buto, Christianson, Crosson, DeBusk, DeSalvo, M. Ginsburg, P. Ginsburg, Grabowski, Jaffery, Perlin, Pyenson, Ryu, Safran, Thomas, Thompson, Wang

Chapter 12: Hospice services

For 2020, the Congress should reduce the fiscal year 2019 Medicare base payment rates for hospice providers by 2 percent.

Yes: Bricker, Buto, Christianson, Crosson, DeBusk, DeSalvo, M. Ginsburg, P. Ginsburg, Grabowski, Jaffery, Perlin, Pyenson, Ryu, Safran, Thomas, Thompson, Wang

Chapter 13: The Medicare Advantage program: Status report

No recommendations

Chapter 14: The Medicare prescription drug program (Part D): Status report

No recommendations

Chapter 15: Redesigning Medicare’s hospital quality incentive programs

The Congress should:

- Replace Medicare’s current hospital quality programs with a new hospital value incentive program (HVIP) that:
 - includes a small set of population-based outcome, patient experience, and value measures;
 - scores all hospitals based on the same absolute and prospectively set performance targets;
 - accounts for differences in patients’ social risk factors by distributing payment adjustments through peer grouping, and
- For 2020, update the 2019 Medicare base payment rates for acute care hospitals by 2 percent. The difference between the update recommendation and the amount specified in current law should be used to increase payments in a new HVIP.

Yes: Bricker, Buto, Christianson, Crosson, DeBusk, DeSalvo, M. Ginsburg, P. Ginsburg, Grabowski, Jaffery, Perlin, Pyenson, Ryu, Safran, Thomas, Thompson, Wang

Chapter 16: Mandated report: Opioids and alternatives in hospital settings—Payments, incentives, and Medicare data

No recommendations

Acronyms

Acronyms

A-APM	advanced alternative payment model	CHIP	Children's Health Insurance Program
ABIM	American Board of Internal Medicine	CKD	chronic kidney disease
ACH	acute care hospital	CLABSI	central line–associated bloodstream infection
ACO	accountable care organization	CMG	case-mix group
ADL	activity of daily living	CMI	case-mix index
AHRQ	Agency for Healthcare Research and Quality	CMMI	Center for Medicare & Medicaid Innovation
AKI	acute kidney injury	CMR	comprehensive medication review
ALF	assisted living facility	CMS	Centers for Medicare & Medicaid Services
ALOS	average length of stay	CMS-HCC	CMS hierarchical condition category
ANPRM	advance notice of proposed rulemaking	CON	certificate of need
APC	ambulatory payment classification	COPD	chronic obstructive pulmonary disease
ASC	ambulatory surgical center	CPI-U	consumer price index for all urban consumers
ASCQR	ASC Quality Reporting [Program]	C-SNP	chronic condition special needs plan
ASP	average sales price	CT	computed tomography
ASP + 6 percent	average sales price plus 6 percent	DIR	direct and indirect remuneration
ASPE	Assistant Secretary for Planning and Evaluation	DMEPOS	durable medical equipment, prosthetics, orthotics, and supplies
AUC	Appropriate Use Criteria [Program]	DMP	drug management program
AWP	average wholesale price	DoD	Department of Defense
B	billion	DRG	diagnosis related group
BBA	Bipartisan Budget Act [of 2015]	DSH	disproportionate share
BBA	Bipartisan Budget Act [of 2018]	D-SNP	dual-eligible special needs plan
BLS	Bureau of Labor Statistics	DUR	Drug Utilization Review
BMI	body mass index	DVP	Drug Value Program
CAH	critical access hospital	E&M	evaluation and management
CAHPS®	Consumer Assessment of Healthcare Providers and Systems®	EBITDA	earnings before interest, taxes, depreciation, and amortization
C-APC	comprehensive ambulatory payment classification	ED	emergency department
CARA	Comprehensive Addiction and Recovery Act of 2016	EDS	Encounter Data System
CARE	Continuity Assessment Record and Evaluation	eGFR	estimated glomerular filtration rate
CAUTI	catheter-associated urinary tract infection	EGWP	employer group waiver plan
CBO	Congressional Budget Office	EHR	electronic health record
CC	complication or comorbidity	EMR	electronic medical record
CCI	chronically critically ill	ESA	erythropoiesis-stimulating agent
CCM	chronic care management	ESCO	ESRD Seamless Care Organization
CCP	coordinated care plan	ESRD	end-stage renal disease
CCR	continuing care retirement	FAERS	FDA Adverse Event Reporting System
CDC	Centers for Disease Control and Prevention	FDA	Food and Drug Administration
CDS	clinical decision support	FFS	fee-for-service
CEC	Comprehensive ESRD Care [Model]	FIM™	Functional Independence Measure™
CHC	continuous home care	FY	fiscal year
		GAO	Government Accountability Office

GDP	gross domestic product	LOS	length of stay
GI	gastrointestinal	LPN	licensed practical nurse
GIP	general inpatient care	LTCH	long-term care hospital
HAC	hospital-acquired condition	LUPA	low utilization payment adjustment
HACRP	Hospital-Acquired Condition Reduction Program	MA	Medicare Advantage
H-CAHPS®	Hospital Consumer Assessment of Healthcare Providers and Systems®	MAC	Medicare administrative contractor
HCBS	home- and community-based services	MACRA	Medicare Access and CHIP Reauthorization Act of 2015
HCC	hierarchical condition category	MA-PD	Medicare Advantage–Prescription Drug [plan]
HCPCS	Healthcare Common Procedure Coding System	MAT	medication-assisted treatment
HEDIS®	Healthcare Effectiveness Data and Information Set®	MB	market basket
HHA	home health agency	MCC	major complication or comorbidity
HHS	Department of Health and Human Services	MCCM	Medicare Care Choices Model
HI	Hospital Insurance (Medicare Part A)	MDH	Medicare-dependent hospital
HIV	human immunodeficiency virus	MedPAC	Medicare Payment Advisory Commission
HMO	health maintenance organization	MEI	Medicare Economic Index
HOPD	hospital outpatient department	MGMA	Medical Group Management Association
HOS	Health Outcomes Survey	MIPPA	Medicare Improvements for Patients and Providers Act of 2008
HRA	health risk assessment	MIPS	Merit-based Incentive Payment System
HRRP	Hospital Readmissions Reduction Program	MME	morphine milligram equivalent
HUD	Department of Housing and Urban Development	MMSEA	Medicare, Medicaid, and SCHIP Extension Act of 2007
HVIP	hospital value incentive program	MRI	magnetic resonance imaging
ICD	implantable cardioverter-defibrillator	MSA	metropolitan statistical area
ICD-9	International Classification of Diseases, 9th revision	MSA	Medicare Medical Savings Account
ICD-10	International Classification of Diseases, 10th revision	MS-DRG	Medicare severity–diagnosis related group
ICU	intensive care unit	MS-LTC-DRG	Medicare severity long-term care diagnosis related group
IMPACT	Improving Medicare Post-Acute Care Transformation Act of 2014	MSPB	Medicare spending per beneficiary
IOL	intraocular lens	MTM	medication therapy management
IPPS	inpatient prospective payment system	N/A	not applicable
IPS	interim payment system	N/A	not available
IQRP	Inpatient Quality Reporting Program	NCQA	National Committee for Quality Assurance
IRC	inpatient respite care	NDC	national drug code
IRE	independent review entity	NHEA	National Health Expenditure Accounts
IRF	inpatient rehabilitation facility	NHSN	National Healthcare Safety Network
IRF-PAI	Inpatient Rehabilitation Facility–Patient Assessment Instrument	NP	nurse practitioner
I-SNP	institutional special needs plan	NSAID	nonsteroidal anti-inflammatory drug
KDE	kidney disease education	NTA	nontherapy ancillary
LCD	local coverage determination	OASIS	Outcomes Assessment Information Set
LDO	large dialysis organization	OB/GYN	obstetrics and gynecology
LEP	late enrollment penalty	OCM	Oncology Care Model
LIS	low-income [drug] subsidy	OECD	Organisation for Economic Co-operation and Development

OES	Occupational Employment Statistics	RIC	rehabilitation impairment category
OIG	Office of Inspector General	RN	registered nurse
OMS	Overutilization Monitoring System	RUG	resource utilization group
OOP	out-of-pocket	RVU	relative value unit
OPPS	outpatient prospective payment system	SGR	sustainable growth rate
OQR	Outpatient Quality Reporting [Program]	SHIP	State Health Insurance Assistance Program
OR	operating room	SHM	Society of Hospital Medicine
PA	physician assistant	SIA	service intensity adjustment
PAC	post-acute care	SMI	Supplementary Medical Insurance
PACE	Program of All-Inclusive Care for the Elderly	SNF	skilled nursing facility
PAD	peripheral artery disease	SNP	special needs plan
PAMA	Protecting Access to Medicare Act of 2014	SPI	Surgery Partners Inc.
PAP	patient assistance program	SSI	surgical site infection
PBD	provider-based department	SSO	short-stay outlier
PBM	pharmacy benefit manager	SUPPORT	Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment
PBPM	per beneficiary per month	T	trillion
PCIP	Primary Care Incentive Payment [program]	TASS	toxic anterior segment syndrome
PCRD	Pre-Claim Review Demonstration	TCM	transitional care management
PD	peritoneal dialysis	TDAPA	transitional drug add-on payment adjustment
PDE	prescription drug event	TEFRA	Tax Equity and Fiscal Responsibility Act of 1982
PDGM	Patient-Driven Groupings Model	TMR	targeted medication review
PDMP	prescription drug monitoring program	TNF	tumor necrosis factor
PDP	prescription drug plan	TPS	Total Performance Score
PFFS	private fee-for-service	UA	urban area
PFS	physician fee schedule	UC	urban cluster
POS	point of sale	UNOS	United Network for Organ Sharing
POS	Provider of Services	UOM	unit of measure
PPACA	Patient Protection and Affordable Care Act of 2010	USP	United Surgical Partners
PPO	preferred provider organization	USRDS	United States Renal Data System
PPS	prospective payment system	VA	Department of Veterans Affairs
PQA	Pharmacy Quality Alliance	VBP	value-based purchasing
PQI	Prevention Quality Indicator	WAC	wholesale acquisition cost
PSA	prostate-specific antigen		
PY	payment year		
PY	performance year		
QIP	Quality Incentive Program		
QRP	Quality Reporting Program		
RAC	recovery audit contractor		
RADV	risk adjustment data validation		
RAPS	Risk Adjustment Processing System		
RDS	retiree drug subsidy		
REIT	real estate investment trust		
RHC	routine home care		

More about MedPAC

Commission members

Francis J. Crosson, M.D., chairman

Los Altos, CA

Jon B. Christianson, Ph.D., vice chairman

School of Public Health at the University of Minnesota

Minneapolis, MN

Term expires April 2019

Amy Bricker, R.Ph.

Express Scripts

St. Louis, MO

Jon B. Christianson, Ph.D.

Brian DeBusk, Ph.D.

DeRoyal Industries

Powell, TN

Paul Ginsburg, Ph.D.

Brookings Institution

Washington, DC

Bruce Pyenson, F.S.A., M.A.A.A.

Milliman Inc.

New York, NY

Pat Wang, J.D.

Healthfirst

New York, NY

Term expires April 2020

Kathy Buto, M.P.A.

Arlington, VA

Francis J. Crosson, M.D.

David Grabowski, Ph.D.

Harvard Medical School

Boston, MA

Dana Gelb Safran, Sc.D.

*Health care venture formed by
Amazon, Berkshire Hathaway,
and JPMorgan Chase*

Boston, MA

Warner Thomas, M.B.A.

Ochsner Health System

New Orleans, LA

Term expires April 2021

**Karen DeSalvo, M.D., M.P.H.,
M.Sc.**

Dell Medical School,

The University of Texas at Austin

Austin, TX

**Marjorie Ginsburg, B.S.N.,
M.P.H.**

Sacramento, CA

**Jonathan Jaffery, M.D., M.S.,
M.M.M.**

*University of Wisconsin School of
Medicine and Public Health*

Madison, WI

**Jonathan Perlin, M.D., Ph.D.,
M.S.H.A.**

HCA Healthcare

Nashville, TN

Jaewon Ryu, M.D., J.D.

Geisinger Health System

Danville, PA

Susan Thompson, M.S., B.S.N.

UnityPoint Health

West Des Moines, IA

Commissioners' biographies

Amy Bricker, R.Ph., is senior vice president of the Supply Chain Division of Express Scripts Inc. in St. Louis, MO. She has held leadership roles at Express Scripts in pharmacy network management, supply chain economics, and retail contracting and strategy. Prior positions include regional vice president of account management and director of clinical sales with Walgreens Health Services and director of community retail pharmacy for BJC HealthCare. She currently serves as the chairman of the board of Inside Rx, an Express Scripts subsidiary. Ms. Bricker received a bachelor of science in pharmacy at St. Louis College of Pharmacy.

Kathy Buto, M.P.A., is an independent consultant and an expert in U.S. and international health policy. She serves on the Healthcare Leadership Council of the Healthcare Financial Management Association and as a venture adviser to Incube Labs LLC. She also serves on the board of the Arlington Free Clinic and as a member of Women of Impact, a women's health care leadership group. Her previous positions include vice president of global health policy at Johnson & Johnson, senior health adviser at the Congressional Budget Office, deputy director of the Center for Health Plans and Providers at the Health Care Financing Administration (now the Centers for Medicare & Medicaid Services), and deputy executive secretary for health at the Department of Health and Human Services. Ms. Buto received her master's in public administration from Harvard University.

Jon B. Christianson, Ph.D., is the James A. Hamilton Chair in Health Policy and Management in the Division of Health Policy and Management at the School of Public Health at the University of Minnesota. His research has addressed the areas of health finance, payment structures, rural health care, managed care payment, and the quality and design of care systems. Dr. Christianson received his Ph.D. in economics from the University of Wisconsin.

Francis J. Crosson, M.D., spent 35 years as a physician and physician executive at Kaiser Permanente. In 1997, he founded and then for 10 years led the Permanente Federation LLC, the national umbrella organization for the physician half of Kaiser Permanente. Later he served as senior fellow at the Kaiser Permanente Institute for Health Policy and director of public policy for The Permanente Medical Group. From July 2012 through October 2014,

he was group vice president of the American Medical Association in Chicago, IL, where he oversaw work related to physician practice satisfaction, efficiency, and sustainability. He previously served on MedPAC from 2004 to 2010, including as vice chair from 2009 to 2010. Dr. Crosson received his medical degree from the Georgetown University School of Medicine.

Brian DeBusk, Ph.D., is chief executive officer of DeRoyal Industries in Powell, TN, which operates in the surgical, orthopedic, wound care, and health care information technology markets. He also serves as vice chairman of Lincoln Memorial University in rural Tennessee, which includes graduate medical education programs for physicians, physician assistants, nurse practitioners, and nurses. Dr. DeBusk's prior employment includes General Electric, Inobis, and Pace Energy Systems. He has served on the faculty of both the University of Tennessee and Lincoln Memorial University, teaching classes in information technology and business strategy. Dr. DeBusk holds a Ph.D. in electrical engineering from Vanderbilt University and a master of business administration from Emory University.

Karen DeSalvo, M.D., M.P.H., M.Sc., is a professor of medicine and population health at the Dell Medical School at the University of Texas at Austin, where she provides leadership on efforts addressing the social determinants of health, including innovative projects on community health, technology, and medical care. Before joining the University of Texas, Dr. DeSalvo was dually appointed as the acting assistant secretary for health and the national coordinator for health information technology at the Department of Health and Human Services. Dr. DeSalvo received her medical and public health degrees from Tulane University School of Medicine, where she also completed her residency and fellowship in internal medicine. She has a master's degree in clinical epidemiology from the Harvard School of Public Health.

Marjorie Ginsburg, B.S.N., M.P.H., is the founding executive director of the Center for Healthcare Decisions Inc., which she ran from 1994 through mid-2016. In that role, she was responsible for the design, implementation, and evaluation of projects and programs that fostered civic engagement around health policy issues that affected individuals and society at large. Among the policy issues

Ms. Ginsburg studied were end-of-life care, health plan benefits design, and strategies to reduce overuse of unnecessary medical care. Ms. Ginsburg currently volunteers as a Medicare counselor with California's State Health Insurance Assistance Program (called the Health Insurance Counseling and Advocacy Program) in Sacramento, CA.

Paul Ginsburg, Ph.D., is the Leonard Schaeffer Chair in Health Policy Studies at the Brookings Institution in Washington, DC, and professor of health policy at the University of Southern California, where he is affiliated with the USC Schaeffer Center for Health Policy and Economics. He directs the USC-Brookings Schaeffer Initiative for Health Policy. Prior positions include founder and president of the Center for Studying Health System Change, founding executive director of the Physician Payment Review Commission, senior economist at RAND, and deputy assistant director at the Congressional Budget Office. Dr. Ginsburg earned his doctorate in economics from Harvard University.

David Grabowski, Ph.D., is a professor in the Department of Health Care Policy at Harvard Medical School in Boston, MA. His research primarily focuses on the economics of aging, with an emphasis on post-acute and long-term care financing, organization, and delivery of services. Dr. Grabowski served as a member of two CMS technical expert panels that focused on the home health prospective payment system and the quality measures used in the home health value-based purchasing model. He serves on the editorial board of several journals, including the *American Journal of Health Economics* and *Medical Care Research & Review*. Dr. Grabowski received his Ph.D. in public policy from the Irving B. Harris School of Public Policy at the University of Chicago.

Jonathan Jaffery, M.D., M.S., M.M.M., is a professor of medicine at the University of Wisconsin School of Medicine and Public Health. Dr. Jaffery serves as SVP/chief population health officer at UW Health and as president of UW Health ACO Inc., where he is responsible for the overall development, coordination, and implementation of the population health strategy. A board-certified nephrologist, Dr. Jaffery holds a B.A. in Russian literature from the University of Michigan and an M.D. from The Ohio State University College of Medicine. He completed an internal medicine residency and nephrology fellowship at the University of Vermont. A former Robert Wood Johnson Foundation Health Policy Fellow and chief

medical officer for the Wisconsin State Medicaid program, Dr. Jaffery has graduate degrees from the University of Wisconsin School of Medicine and Public Health and the University of Southern California Marshall School of Business.

Jonathan Perlin, M.D., Ph.D., M.S.H.A., is the president of clinical services and chief medical officer of HCA Healthcare in Nashville, TN. In that role, he has leadership responsibility for clinical services and improving performance at HCA's hospitals and other sites of service. Before joining HCA, Dr. Perlin was Under Secretary for Health in the U.S. Department of Veterans Affairs. Dr. Perlin is a member of the National Academy of Medicine and has faculty appointments at Vanderbilt University and Virginia Commonwealth University. Dr. Perlin received his Ph.D. in pharmacology and his medical degree from the Medical College of Virginia at Virginia Commonwealth University, where he also completed his residency training in internal medicine.

Bruce Pyenson, F.S.A., M.A.A.A., is principal and consulting actuary at Milliman Inc. in New York, NY. His work has focused on diverse aspects of health care and insurance, including recent work related to alternative payment models for accountable care organizations, such as shared savings, as well as financial modeling of therapeutic interventions. He has co-authored publications on such topics as the cost-effectiveness of lung cancer screening, pandemic influenza, and site-of-service cost differences for chemotherapy. Mr. Pyenson is a fellow of the Society of Actuaries and a member of the American Academy of Actuaries. He is adjunct clinical associate professor of New York University's College of Global Public Health.

Jaewon Ryu, M.D., J.D., is the interim president and CEO for Geisinger, an integrated health care system headquartered in Danville, PA, that comprises hospitals, employed providers, a health plan, a medical school, and research and innovation centers. Before going to Geisinger, he served as president of integrated care delivery at Humana and previously held leadership roles at the University of Illinois Hospital & Health Sciences System and at Kaiser Permanente. Dr. Ryu received his undergraduate education at Yale University and his medical and law degrees from the University of Chicago, after which he completed his residency training in emergency medicine at Harbor-UCLA Medical Center.

Dana Gelb Safran, Sc.D., is head of measurement for the health care venture formed by Amazon, Berkshire Hathaway, and JPMorgan Chase (ABJ). In that role, she is part of the organization's core leadership team and is responsible for applying data, analytics, and measurement to optimize the venture's success. Dr. Safran was previously chief performance measurement and improvement officer at Blue Cross Blue Shield of Massachusetts (BCBSMA). As an architect of the BCBSMA Alternative Quality Contract and the leader responsible for its unique use of behavioral economics and payer-provider collaboration to reduce cost while improving quality, Dr. Safran is widely recognized as having contributed to the national push toward value-based payment. Before joining BCBSMA, she led a research institute at Tufts University School of Medicine dedicated to developing patient-reported measures of health and health care quality. She remains on the faculty at Tufts and serves on a number of state and national advisory bodies related to health care quality and affordability. She earned her master's and doctor of science degrees from the Harvard School of Public Health.

Warner Thomas, M.B.A., is president and CEO of the Ochsner Health System in New Orleans, LA. He oversees a network of 40 owned, managed, and affiliated hospitals and specialty hospitals, more than 100 health and urgent care centers, and more than 4,500 employed and affiliated physicians. Ochsner is the only Louisiana hospital recognized by *U.S. News & World Report* as a "Best Hospital" across three specialty categories caring for patients from all 50 states and more than 60 countries worldwide each year. The Ochsner Health System operates one of the largest accredited non-university-based graduate medical education programs in the United States. It is also one of the largest Medicare risk contractors in the region and offers an accountable care organization for Medicare. Mr. Thomas's prior positions include chief operating officer of Ochsner Health System, vice president of managed care and network development at the Southern New Hampshire Medical Center, and senior auditor and consultant at Ernst & Young. He received his master of business administration from Boston University Graduate School of Management.

Susan Thompson, M.S., B.S.N., is senior vice president of integration and optimization with UnityPoint Health, an integrated delivery system serving Iowa, central and western Illinois, and central Wisconsin. Ms. Thompson is also the chief executive officer of UnityPoint Health

Accountable Care LC, an Iowa limited liability company that brings together a diverse group of health care providers including hospitals, employed and independent physicians, and other providers, as well as other health initiatives. Previously, she was president and chief executive officer of UnityPoint Health–Fort Dodge, which serves a predominantly rural and aging population and includes a sole community hospital, a primary care and multispecialty physician group, management contracts with five critical access hospitals throughout the region, and a Pioneer Accountable Care Organization. She also served in successive clinical and management positions at Trinity Regional Medical Center, as intensive care staff nurse, director of quality systems, assistant director of patient-focused care, chief information officer, chief operating officer, and chief executive officer. Ms. Thompson obtained her B.S. in nursing and her M.S. in health services management from Clarkson College in Omaha, NE.

Pat Wang, J.D., is president and chief executive officer of Healthfirst in New York, NY. Healthfirst is a not-for-profit provider-sponsored health plan that serves Medicare enrollees, including those who are eligible for low-income subsidies and those who are dually eligible for Medicare and Medicaid. Healthfirst incorporates a value-based payment model that aligns incentives with hospital and physician partners. Ms. Wang previously served as senior vice president of finance and managed care for the Greater New York Hospital Association. She received her law degree cum laude from the New York University School of Law.

Commission staff

James E. Mathews, Ph.D.

Executive director

Dana K. Kelley, M.P.A.

Deputy director

Analytic staff

Alison Binkowski, M.P.H, M.I.A.

Catherine Bloniarz, M.S.

Stephanie Cameron, Sc.M.

Carol Carter, Ph.D.

Evan Christman, M.P.Aff.

Zachary Gaumer, M.P.S.

David V. Glass, M.S.

Scott Harrison, Ph.D.

Andy Johnson, Ph.D.

Kim Neuman, M.A.

Brian O'Donnell, M.P.P.

Jennifer Podulka, M.P.Aff.

Nancy Ray, M.S.

Eric Rollins, M.P.P.

Rachel Schmidt, Ph.D.

Jeffrey Stensland, Ph.D.

Shinobu Suzuki, M.A.

Ledia Tabor, M.P.H.

Ariel Winter, M.P.P.

Daniel Zabinski, Ph.D.

Research assistants

Emma Achola

Carolyn San Soucie

Assistant director

Paul Masi, M.P.P.

Special assistant

Olivia Berci

Administrative staff

Allan Holland

Wylene Carlyle

Timothy Gulley

Tina Jennings, MTESL

Howard Patterson

Cynthia Wilson

